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McCULLOUGH'S
Catalogue of
Bulbs, Seeds, Plants, Shrubs, Fruit Trees, Etc.

With complete cultural directions for bulbs

The J. M. McCullough's Sons Co.
SEEDSMEN
316 WALNUT STREET
Just Below Fourth
Cincinnati, O.

H. B. McCULLOUGH, President
GEO. H. PARVIN, Vice-Pres't

Established 1838
Long Distance Phone Main 4598
P. O. Box 845
INSTRUCTIONS
Always Get Your Bulbs Early

Established 1838

IT IS advisable to get your bulbs in the ground as early as possible after the first of October. Sooner will do no harm in cold localities. Although they can be planted as late as they can be got in the ground, yet those planted early give finer flowers, as it is necessary for bulbs to make some root growth in Fall to give the best results. The general line of bulbs will be ready the second week in September. A few kinds (chiefly lilies) are not ready for shipment before November, as they are not matured enough to take up before that time. Therefore, please note that all general orders will be shipped as soon as received, and the "November Bulbs" will be forwarded as early in November as possible. Should you wish us to hold your general order until November bulbs are ready, please so state.

OUR PRICES INCLUDE POSTAGE on single bulbs and by the dozen, except where otherwise noted. Bulbs quoted by the hundred are not sent prepaid.

Order Early. It will greatly facilitate shipments if orders are sent early. We aim to send all orders the day received.

Send the Money with the Order. Remit by Post Office Order, Registered Letter, Express Money Order, or Draft on Cincinnati or New York. United States Postage Stamps will be received for small amounts; be exceedingly careful about the least moisture getting on them when remitting, as they sometimes reach us so stuck together as to be almost worthless.

We do not send C. O. D. Everything being plainly priced, the return charges on money is an unnecessary expense.

Should you change your address, we will esteem it a favor if you will notify us, so that we can forward our Catalogues with regularity; if you receive two catalogues of the same kind, please hand one to some friend who is interested in floriculture.

Should an Error Occur, we desire to be promptly informed, and will take pleasure in making satisfactory corrections.

Write your name and address distinctly and in full; please use the order sheet and envelope inserted in this catalogue.

Our Spring Catalogue of Seeds, Bulbs, etc. for 1920 will be ready about January 1st, and will be sent free to all customers and applicants.

PREMIUMS AND OFFERS TO CLUBS

To induce our patrons to form clubs to purchase bulbs in quantities we offer the following liberal discounts on bulbs selected from our general lists:

On $1.00 order may select bulbs to the amount of...$1.10

<table>
<thead>
<tr>
<th>First Pound</th>
<th>Each Additional Pound</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zone</td>
<td></td>
</tr>
<tr>
<td>1 and 2—150 miles</td>
<td>5c</td>
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<td>3—150 to 300 miles</td>
<td>6c</td>
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<td>4—300 to 600 miles</td>
<td>7c</td>
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<tr>
<td>5—600 to 1,000 miles</td>
<td>8c</td>
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<tr>
<td>6—1,000 to 1,400 miles</td>
<td>9c</td>
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<td>7—1,400 to 1,800 miles</td>
<td>10c</td>
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<tr>
<td>8—all over 1,800 miles</td>
<td>12c</td>
</tr>
</tbody>
</table>

POISONS cannot be sent by mail. Liquids and goods packed in glass should be sent by Express.

The J. M. McCullough's Sons Co., give no warranty, express or implied, as to description, quality, productiveness, or any other matter of any seeds, bulbs or plants they send out, and they will not be in any way responsible for the crop. If the purchaser does not accept the good on these terms, they are at once to be returned.

THE J. M. McCULLOUGH’S SONS CO.
H. B. McCULLOUGH, Pres't.
GEO. H. PARVIN, Vice-Pres't.
Seedsmen and Importers of
BULBS

Salesrooms and Offices:
WALNUT STREET
Just Below Fourth
Cincinnati, Ohio

Established 1838
**ORDER SHEET**

THE J. M. McCULLOUGH'S SONS CO., Cincinnati, O.

316 Walnut Street, Between Third and Fourth Streets

**VERY IMPORTANT—**
Write your Name and Address Distinctly and in Full.

**Name of Person:**

```
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**Post Office:**

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**Rural Route:**

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**State:**

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```

**Shipping Point (If different) from Post Office:**

```
```

**Please forward by:**

```
```

**State if wanted by Mail, Express, or Freight, and which Company.**

Please use this Order Sheet for orders only, and carry out Catalogue Price of each article. Write your letters on a separate sheet. By observing these directions, it will help us to fill your order with greater accuracy.

More order blanks will be sent on request. Always write letters on a separate sheet from your order.

We give no warranty, express or implied, as to description, quality, productiveness or any other matter of any seeds, bulbs or plants we send out, and we will not be in any way responsible for the crop. If the purchaser does not accept the goods on these terms, they are at once to be returned.

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<table>
<thead>
<tr>
<th>Quantity</th>
<th>Name of Article Wanted</th>
<th>Price</th>
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<table>
<thead>
<tr>
<th>Date</th>
<th>Enclosed find Cash</th>
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<table>
<thead>
<tr>
<th>Date</th>
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THE J. M. McCULLOUGH'S SONS CO.
Dutch Hyacinths

THE Hyacinth is so well known and esteemed that any description of its many good qualities is needless. The list now offered includes nearly every shade of red, white, blue, yellow, etc.

Culture of the Hyacinth

FOR PLANTING HYACINTHS IN OPEN GROUND, the preferable season is September to November, but they can be set out at any later time as long as the ground is open. The best compost for their culture is one-third sand, one-third well-rotted cow manure, and one-third good garden mould; or, where the soil is naturally light, well-rotted cow manure liberally intermixed is all sufficient. The beds composed of the above compost should be well dug to a depth of fourteen inches, and raised from two to four inches above the level of the walk. The bulbs should be planted about six inches deep, and from five to six inches apart. Care must be taken not to press the earth too firmly around and over the bulbs. After planting, rake the bed or border smooth, and after the ground has frozen tolerably hard in early Winter, cover with a few inches of dry litter, leaves, evergreen boughs or coarse manure.

FOR THE CULTURE OF HYACINTHS IN POTS, prepare the above compost, adding, if possible, a quantity of leaf mould. The most favorable time for planting is September, October and November; for a succession of bloom, use a four or five-inch pot for a single bulb, and seven-inch for three bulbs. Set the bulbs down in the soil and cover them; do not press them in by force, for this packs the soil under them, and when the roots start they are apt to lift the bulb. After planting, water and set away in a dark place until the pots are well filled with roots. Keep the earth moist, and being to the light as wanted to bloom. Being exposed to the light for the first time, they are, of course, very delicate, care should, therefore, be exercised not to place them in too strong sunlight for three days.

FOR CULTURE IN GLASSES, the bulbs should be so placed that only the base touches the water; then place them, for the first ten days, in a dark but cool closet or room, to promote the starting of the roots, after which expose them to the light and air as much as possible; avoid placing them near gas-light. The water should be changed as it becomes impure; draw the roots entirely out of the glasses, rinse off the fibers in clean water and wash the inside of the glass well. The water should never be allowed to freeze. When the flowers are well advanced, give them a shower of water every day.

Choice Named Single Hyacinths

(Extra Selected, First-Size)

IT is supposed by many that the best Hyacinths are those which produce double flowers. This is by no means correct, there being many more of the single varieties producing fine, free and brilliant spikes of bloom, and they succeed better in glasses than the double.

PRICES PER DOZEN AND SINGLE BULB INCLUDE POSTAGE

We offer the following named varieties at the uniform price of each 20c, per dozen $2.00, per 100 $15.00.

Single Pure and Tinted White (Cont’d)

LA FRANCHISE, rose white, large bells, good truss. 
LA GRANDE, rose, with immense bells, one of the best in cultivation.
L’IMMACULATION, pure white, extra large truss.
MIMI, pure white, large spike and truss, splendid bedder and good forcer.

Single Blue, Lavender and Purple

BARON VON THULL, dark blue, compact spike.
CAPTAIN BOYTON, bright lavender blue, with silvery shading, handsome long spike.
ENCHANTEUSE, delicate porcellain blue, large compact truss.
GRAND LILAS, silvery blue, large compact truss.
GRAND MAITRE, deep porcellain blue, large truss.
KING OF THE BLUES, dark rich blue, splendid spike.
LA PEYROUSE, light blue, large bells.
MARIE, dark purple, very large spike.
PERLE BRILLIANTE, light blue, large spike and flowers; later flowering.
QUEEN OF THE BLUES, beautiful azure blue, large bells and handsome truss, late.

Single Yellow

BUFF BEAUTY, orange turning to lemon yellow, large flower and spike, very early, good for pots or glasses.
KING OF YELLOW, pure yellow, large bell and spike.
YELLOW HAMMER, golden yellow, fine large spike; one of the best.

The above named Hyacinths, each 20c; per doz. $2.00; per 100 $15.00.

Persons purchasing Hyacinths at our counters, or who wish to pay their own express charges may deduct 10c per dozen from these prices when bought by the dozen.

Page 1
Select First-Size Named Double Hyacinths

While double-flowering Hyacinths do not, as a rule, produce as fine spikes as the single sorts offered on page 1, yet they are exceedingly handsome, and deserve extensive cultivation. The varieties listed below are those which we have found by actual tests to be the most satisfactory.

We offer the following named varieties at the uniform price of......Each, 20c; per dozen, $2.00; per 100, $15.00.

**Double Red and Rose**
- **BOUQUET TENDRE**, dark carmine, good spike.
- **CHESTNUT FLOWER**, bright rose, large flower.
- **GROOTVORST**, pink, large truss and bells.
- **NOBLE PAR MERITE**, rose, large bells, splendid truss.
- **PRESIDENT ROOSEVELT**, bright rose, fine spike.
- **PRINCE OF ORANGE**, blush rose, fine spike, semi-double.

**Double White**
- **BOUQUET ROYAL**, pure white, fine spike.
- **LA VIRGINITE**, blush white, dwarf, large bells.
- **PRINCE OF WATERLOO**, pure white, large spike.
- **QUEEN OF WHITES**, pure white, large truss, fine flower.

**Double Blue**
- **BLOKSBERG**, porcelain striped, large truss.
- **DELCICATA**, light blue, handsome bells and spike.
- **GARRICK**, lilac blue, with bright blue stripe.
- **GENERAL KOHLER**, bright blue, large spike.
- **LORD RAGLAN**, azure blue, deep blue center.

**Double Yellow**
- **GOETHE**, clear, pale yellow, large bells, fine truss.
- **LOUIS D'OR**, bright yellow, red center, large bells.
- **SIR ROWLAND HILL**, pure yellow.
- **SUNFLOWER**, yellow, tinted salmon.
- **WILLIAM III**, yellow, with red center, compact spike.

The above named Hyacinths, Each, 20c; per dozen, $2.00; per 100, $15.00.

Price Per Dozen and Single Bulb Includes Postage.

Select Second-Size Named Single Hyacinths

These are smaller than our Extra Selected first-size bulbs offered on Page 1, but are fine flowering stock, and admirably adapted for pot culture and high-grade bedding where distinct shades of color are desired.

We can furnish them in the following selected varieties at the uniform price of each 15c; per doz. $1.50; per 100 $10.00.

**Single Red, Rose and Pink**
- **CARDINAL WISEMAN**, charming bright rose pink, large spike.
- **GENERAL PELISSIER**, deep crimson, fine truss, early.
- **GERBÈDE**, deep rose, fine compact spike.
- **GIANTIE**, delicate pink, large bells.
- **MORENO**, waxy pink; large truss and bells, extra fine variety.
- **ROBT. STEIGER**, bright crimson, a fine compact spike.
- **ROI DES BELGES**, bright scarlet, fine truss.
- **ROSINE**, salmon pink, large bells, extra fine for forcing or bedding.

**Single Pure and Tinted White**
- **ALBERTINE**, pure white, early, good forcing variety.
- **GRANDE BLANCHE**, blush white, large spike and flowers, early.
- **GRANDEUR A MERVEILLE**, rosy-white, large truss.
- **LA FRANCHISE**, rose white, large bells, good truss.
- **LA GRANDESSE**, pure white, with immense bells; one of the best in cultivation.
- **L'INNOCENCE**, pure white, extra large truss.
- **PAIX DE L'EUROPE**, pure white, late, good bedder.

**Single Blue, Lavender and Purple**
- **GRAND MAÎTRE**, deep porcelain blue, large truss.
- **KING OF THE BLUES**, dark, rich blue, splendid spike.
- **LA PEYTOUSE**, light blue, large bells.
- **MAPIE**, dark purple, very large spike.
- **QUEEN OF THE BLUES**, beautiful azure blue, large bells and handsome truss; late.
- **REGULUS**, light blue, good forcing and bedder.

The above named Hyacinths, each 15c; per doz. $1.50; per 100, $10.00.

Persons purchasing Hyacinths at our counters, or who wish to pay their own express charges may deduct 10c per dozen from these prices when bought by the dozen.
CHOICE UN-NAMED HYACINTHS

For Bedding and Forcing, in Separate Colors and Mixed Shades

These are made up of varieties selected for beds and borders, or for forcing for cut flowers, and are of such superior quality as to be entirely satisfactory to florists who use large quantities of them.

Prices per Dozen and Single Bulb Include Postage.

We offer the following un-named varieties at the uniform price of... Each, 8c; per doz., 75c; per 100, $5.25

<table>
<thead>
<tr>
<th>Single Varieties</th>
<th>Double Varieties</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot; Rose</td>
<td>&quot; Rose</td>
</tr>
<tr>
<td>&quot; Pure White</td>
<td>&quot; Pure White</td>
</tr>
<tr>
<td>&quot; White, tinted</td>
<td>&quot; White, tinted</td>
</tr>
<tr>
<td>&quot; Dark Blue and Purple</td>
<td>&quot; Dark Blue and Purple</td>
</tr>
<tr>
<td>&quot; Light Blue</td>
<td>&quot; Light Blue</td>
</tr>
<tr>
<td>Yellow</td>
<td>Yellow</td>
</tr>
<tr>
<td>SINGLE MIXED, all colors.</td>
<td>DOUBLE MIXED, all colors.</td>
</tr>
</tbody>
</table>

Round Bed of Named Single Hyacinths, Second-Size

THIS illustration represents a bed 15 feet in circumference, or 5 feet across, composed of 5 circular rows, requiring a total of 100 bulbs, planted 6 inches apart, as follows:

Combination No. 1. Center row contains 9 Red Hyacinths; second row contains 14 White Hyacinths; third row contains 20 Blue Hyacinths; fourth row contains 25 Pink Hyacinths; fifth row contains 32 Dark Blue Hyacinths.

Price $10.00, not prepaid.

Combination No. 2. Consists of 100 Un-named Hyacinths, mixed shades that will produce a charming effect.

Price $5.25; not prepaid.

SQUARE BED OF Single Hyacinths

This illustration represents a bed 6 feet square, requiring a total of 169 bulbs planted 6 inches apart.

PINK AND BLUE COMBINATION requires 85 Pink and 84 Blue Hyacinths.

CRIMSON AND WHITE COMBINATION requires 85 Crimson and 84 White Hyacinths.

Price for either Combination—Our Select Second Size, Named Hyacinths, $15.00, not prepaid.

"Suburban Combination" consists of 169 Choice Un-named Hyacinths, mixed shades. Price $8.00, not prepaid.

HYACINTHS--Miniature or Dutch Roman

These may be planted close together in pots or boxes, also in beds in the open ground with charming effect. We can furnish them in the following colors: Dark Red, Rose and Pink, Dark Blue, Light Blue, Pure White, All Colors Mixed.

Each, 6c; per doz. 60c; per 100 $3.75.

McCULLOUGH'S COLLECTIONS OF NAMED HYACINTHS

Special Selection for Growing in Water.

This selection is made up of sorts which are especially adapted for the purpose. For cultural notes see page 1. 12 distinct named single varieties; our selection... $2.00

Persons purchasing Hyacinths at our counters, or who wish to pay their own express charges may deduct 10c per dozen from these prices when bought by the dozen.

Special Selection for Growing in Pots.

A selection of distinct sorts best adapted for the purpose. For cultural notes see page 1. 12 distinct named double varieties; our selection...$2.00
TULIPS are one of the most ornamental flowers grown; will thrive in any rich soil or situation, if cultivated the same as the Hyacinth. Their brilliant colors impart a rich and beautiful appearance to the lawn in early Spring. They can be grown in the house in pots or baskets, and will force well with Hyacinths under the same treatment. For out-door planting, October and November are the most favorable months. Have the ground well drained; plant from three to four inches deep and about six inches apart.

The letters a, b, c, following the varieties, indicate their earliness of bloom, the A’s flower together, and are the earliest; B next, etc. The figures indicate the height attained in inches, to aid in arranging flower beds.

<table>
<thead>
<tr>
<th>Prices per Dozen and Single Bulb Include Postage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persons purchasing Tulips at our counters, or who wish to pay their own express charges, may deduct 1e per dozen when bought by the dozen. Prices per 100 are not prepaid.</td>
</tr>
</tbody>
</table>

### SINGLE EARLY TULIPS.

<table>
<thead>
<tr>
<th>Variety</th>
<th>Each Per Doz.</th>
<th>Per 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTUS, b7, scarlet, fine bold flowers, good for forcing or bedding</td>
<td>$0.04</td>
<td>$0.40</td>
</tr>
<tr>
<td>BELLE ALLIANCE, b7, brilliant scarlet, large flower, sweet scented; fine for bedding and forcing</td>
<td>$0.06</td>
<td>$0.45</td>
</tr>
<tr>
<td>BIZARD VERDIKT, brilliant carmine, striped yellow</td>
<td>$0.05</td>
<td>$0.45</td>
</tr>
<tr>
<td>CHRYSOLORA, b9, pure yellow, large and handsome flower; finest yellow bedder</td>
<td>$0.05</td>
<td>$0.45</td>
</tr>
<tr>
<td>COTTAGE MAID, b6, rosy pink, edged with white; a charming variety; for bedding and late forcing</td>
<td>$0.06</td>
<td>$0.45</td>
</tr>
<tr>
<td>COULEUR PONCEAU, cherry and white</td>
<td>$0.05</td>
<td>$0.45</td>
</tr>
<tr>
<td>CRIMSON BRILLIANT, b9, brilliant scarlet, large flower; splendid variety for bedding and forcing</td>
<td>$0.06</td>
<td>$0.45</td>
</tr>
<tr>
<td>DUC DE BERLIN, a8, scarlet with broad yellow edge and yellow base; good for forcing</td>
<td>$0.06</td>
<td>$0.45</td>
</tr>
<tr>
<td>DUCHESE DE PARMA, b6, brownish red with yellow border, large flower; good forcing and bedder</td>
<td>$0.06</td>
<td>$0.45</td>
</tr>
<tr>
<td>DUSART, b8, dark scarlet, large and very robust, fine for parks, a grand flower; finest scarlet bedder.</td>
<td>$0.05</td>
<td>$0.45</td>
</tr>
<tr>
<td>GRAND DUC, (Keizerskroon), b9, deep crimson with broad orange yellow margin, large and effective</td>
<td>$0.05</td>
<td>$0.45</td>
</tr>
<tr>
<td>JOOST VAN VONDEL, b8, crimson, flamed white, large and distinct</td>
<td>$0.05</td>
<td>$0.45</td>
</tr>
<tr>
<td>KING OF THE YELLOWS, b9, deep golden yellow; extra large and showy; good for early forcing</td>
<td>$0.06</td>
<td>$0.45</td>
</tr>
<tr>
<td>LA REINE, (Queen Victoria), b6, white, slightly shaded rose; good variety for bedding or forcing</td>
<td>$0.06</td>
<td>$0.45</td>
</tr>
<tr>
<td>L’IMMACULEE, b7, pure white, very early and fine; excellent for forcing and bedding</td>
<td>$0.05</td>
<td>$0.45</td>
</tr>
<tr>
<td>POTTEBAKER SCARLET, a8, bright scarlet, very large and fine flower</td>
<td>$0.06</td>
<td>$0.45</td>
</tr>
<tr>
<td>WHITE, a8, pure white, fine large showy flower</td>
<td>$0.05</td>
<td>$0.45</td>
</tr>
<tr>
<td>YELLOW, a8, large fine bright golden yellow; excellent forcer</td>
<td>$0.05</td>
<td>$0.45</td>
</tr>
<tr>
<td>PRINCESS MARIANNE, b9, white, with rosy stripe, large flower; excellent for bedding</td>
<td>$0.05</td>
<td>$0.45</td>
</tr>
<tr>
<td>PRINCE OF AUSTRIA, b9, orange scarlet, sweet scented; fine forcer or bedder, a grand Tulip</td>
<td>$0.06</td>
<td>$0.45</td>
</tr>
<tr>
<td>FROSERFINE, a8, carmine rose, rich, silky and effective, beautifully shaped large flower</td>
<td>$0.10</td>
<td>$0.90</td>
</tr>
<tr>
<td>QUEEN OF FIEND, deep pink and white; large pointed petals on strong stems; an attractive bedder</td>
<td>$0.05</td>
<td>$0.45</td>
</tr>
<tr>
<td>QUEEN OF THE WHITES, pure white, with pointed petals on strong stem; good bedder</td>
<td>$0.05</td>
<td>$0.45</td>
</tr>
<tr>
<td>ROSE GRISDELIN, b6, delicate rose, shaded white; fine for forcing and bedding, very beautiful</td>
<td>$0.05</td>
<td>$0.45</td>
</tr>
<tr>
<td>ROSE MUNDI, b8, white, shaded with rich rose, very strong stem; early</td>
<td>$0.05</td>
<td>$0.45</td>
</tr>
<tr>
<td>THOMAS MOORE, b10, orange scarlet, effective large tulip, sweet scented</td>
<td>$0.05</td>
<td>$0.45</td>
</tr>
<tr>
<td>VERMILION BRILLIANT, b8, deep dazzling vermilion; extra fine for pots and masses</td>
<td>$0.08</td>
<td>$0.75</td>
</tr>
<tr>
<td>WHITE SWAN, b9, large pure white, egg shaped flower on tall stems</td>
<td>$0.05</td>
<td>$0.45</td>
</tr>
<tr>
<td>YELLOW PRINCE, b7, golden yellow, extra large and showy, scented as a Tea Rose</td>
<td>$0.05</td>
<td>$0.45</td>
</tr>
<tr>
<td>CHOICEST MIXED, from above named varieties; extra fine</td>
<td>$0.04</td>
<td>$0.40</td>
</tr>
<tr>
<td>FINE MIXED, including all colors and shades</td>
<td>$0.04</td>
<td>$0.40</td>
</tr>
</tbody>
</table>
Late May Flowering Single Tulips

This beautiful class is becoming more popular as they become better known. They are distinct from the early flowering sorts, coming into bloom two or three weeks later, and extending the Tulip season over a period of four weeks or more.

On account of their extreme hardiness, they are especially adapted for the permanent hardy flower border, where they should be liberally planted in clumps or masses. They may also be naturalized in grass, wild gardens, etc. For bedding they are superb, while as cut flowers they are much to be preferred to the early type, having long stems with flowers of great substance that stand out in a perfect condition for a long time.

In planting, the bulbs should be set a little deeper than ordinary tulips, a covering of 4 inches being about right.


Each 4c; per dozen, 40c; per 100, $2.75.

**DIDERI ALBA.** Medium sized, exceedingly formed, creamy white, fragrant flowers; very late.

Each 4c; per dozen, 40c; per 100, $2.75.

**GESNERIANA SPATHULATA.** (26 inches). Intense crimson scarlet, with glittering blue-black center. The tallest, largest flowered and showiest of all Tulips for bedding out in masses. Flowers of enormous size.

Each 4c; per dozen, 40c; per 100, $2.75.

**GESNERIANA ROSEA.** (24 inches). Very large flowers of a bright rose color, with blue center; remaining in perfection for a long time. Each, 5c; per dozen, 45c; per 100, $3.00.

**GOLDEN CROWN.** (22 inches). Large flowers with pointed petals, color rich yellow. Petals faintly edged with red; a good bedder, sweet scented.

Each 4c; per dozen, 40c; per 100, $2.75.

**ISABELLA.** (Blushing Bride, Shandon Bells), (18 inches). Large, long, handsome flower, silvery white, suffused soft carmine rose towards the edge; center creamy yellow and green.

$0.04 Per Doz. $0.10 Per 100

**LA CAMELIE (26 inches).** Pure rose color, with blue center; remaining in perfection for a long time.

Each 4c; per dozen, 40c; per 100, $2.75.

**LA MERVEILLE.** (18 inches). A magnificent variety with very large, sweet scented flowers; color, salmon rose overlaid with orange-red, very effective in beds and borders.

$0.05 Per Doz. $0.15 Per 100

**PARISIAN YELLOW.** (28 inches). A beautiful, large, pure yellow of exquisite shade and shape; special value for forcing.

$0.05 Per Doz. $0.15 Per 100

**PICOTEE.** (Maiden’s Blush), (24 inches). White, faintly edged with pink, which suffuses; the entire flower as it ages; a beautiful cut flower.

$0.04 Per Doz. $0.10 Per 100

**SALMON QUEEN.** (Englewood Pink), (18 inches). Bright rose color with salmon green, large globular flower.

$0.04 Per Doz. $0.10 Per 100

**SWEET NANCY.** A very large, egg-shaped flower, white edged and suffused with rose.

$0.04 Per Doz. $0.10 Per 100

**CHOICEST MIXED.** A splendid mixture of all colors, including sweet scented varieties.

$0.04 Per Doz. $0.10 Per 100

**DARWIN TULIPS (May-Flowering)**

The Darwin are late May-flowering garden Tulips, producing very large bowl-formed flowers of symmetrical shape, on tall, strong stems, 2 to 3 feet high, and are effective grown in groups, in the shrubbery or herbaceous border. They far surpass in color and brilliancy anything before known in Tulips. They include almost every conceivable color and shade.

**ASA GRAY.** Dark Carmine, large, finely formed flower.

$0.05 Per Doz. $0.45 Per 100

**BARONNE DE LA TONNAGE.** (20 inches). Bright pink, point petals; large, effective flower.

$0.05 Per Doz. $0.45 Per 100

**CLAIRA BUTTY.** A large, beautiful flower of remarkable beauty; color soft salmon pink, shaded rose.

$0.05 Per Doz. $0.45 Per 100

**DREAM.** Beautiful delicate lilac—large globular flowers.

$0.06 Per Doz. $0.45 Per 100

**FARNOOMBE SANDERS.** Magnificent flower of the most brilliant scarlet, one of the best and showiest.

$0.06 Per Doz. $0.45 Per 100

**GLOW.** Brilliant, glowing vermilion; blue-black base, zoned white.

$0.06 Per Doz. $0.45 Per 100

**GRETHEIN.** Magnificently large flower of globular form; outside soft blush; inside blush rose.

$0.05 Per Doz. $0.30 Per 100

**MADAME KRELLAGE.** Soft lilac rose, with a broad margin of blush pink; large flower on a very tall stem; good for forcing.

$0.05 Per Doz. $0.30 Per 100

**PAINTED LADY.** A large, flat flower of flushed heliotrope—a good bedder and forcing variety.

$0.06 Per Doz. $0.30 Per 100

**PRIDE OF HAARLEM.** Magnificently formed flower of immense size; color brilliant, deep salmon-rose, shaded with scarlet; electric blue base.

$0.06 Per Doz. $0.30 Per 100

**THE SULTAN.** Rich, glossy black maroon; one of the best dark varieties.

$0.05 Per Doz. $0.25 Per 100

**WHITE QUEEN.** A large globular flower of pure white, faintly flushed with delicate blush.

$0.05 Per Doz. $0.25 Per 100

**FINEST MIXED.** Great variety of all colors and shades.

$0.04 Per Doz. $0.10 Per 100
Bed of Single or Early Tulips.

This illustration represents a bed eighteen feet in circumference or six feet across, requiring a total of 200 bulbs planted five inches apart.

Yellow and Scarlet Combination—100 Yellow and 100 Scarlet Tulips.
White, Crimson, Yellow and Pink Combination—50 White, 50 Crimson, 50 Yellow and 50 Rose Tinted Tulips.
Price for either Combination, $5.00 each; not prepaid.

The above combinations are prepared from Named Varieties that will bloom together.

McCULLOUGH'S "PREMIER" combination of SINGLE TULIPS consists of 200 superfine mixed Single Tulips, embracing a wide range of beautiful colors. Price $4.00; not prepaid.

Double Tulips.

THIS class of Tulips is one of the most valuable. The earlier varieties are admirably adapted for pot cultures and form a pleasing contrast to the Single Tulips in the greenhouse or conservatory. When planted in the open border they are very showy, and a succession of bloom may be had by a judicious selection from the earlier and later varieties. The Rex Rubrorum and La Candeur form a dense mass of bloom when grown in beds, and the flowers remain in perfection of bloom longer than those of the single varieties.

FOR CULTURAL DIRECTIONS, ETC., SEE TULIPS, PAGE 4.

BLANC BORDE POURPRE, violet, bordered white.
Each, 4c; per dozen, 45c; per 100, $3.00.

COURONNE D'OR, b8, golden yellow flushed orange, large handsome flower; excellent for growing in pots or boxes.
Each, 8c; per dozen, 75c; per 100, $5.50.

COUNSINE, dark violet with light border, splendid bedder.
Each, 4c; per dozen, 45c; per 100, $3.00.

DUKE OF YORK, b8, dark rose, bordered white, showy and fine.... Each, 4c; per dozen, 45c; per 100, $3.00.

GLORIA SOLIS, a7, deep crimson, with broad golden margin, very large. Each, 6c; per dozen, 55c; per 100, $3.75.

IMPERATOR RUBRORUM, a9, rich crimson scarlet, extra fine for forcing. Each, 8c; per dozen, 75c; per 100, $5.50.

LA CANDEUR, b8, pure white, extensively grown for bedding.
Each, 6c; per dozen, 50c; per 100, $3.50.

MURILLO, b8, bluish white, shaded rose, large flowers, fine for forcing and bedding.
Each, 7c; per dozen, 70c; per 100, $5.00.

REX RUBRORUM, b9, bright crimson scarlet, superb for bedding; large, showy.
Each, 4c; per dozen, 45c; per 100, $3.00.

ROSE BLANCHE, pure white, good bedding variety.
Each, 4c; per dozen, 45c; per 100, $3.00.

RUBRA MAXIMA, a9, dark crimson scarlet, splendid early forcing and good bedder.
Each, 7c; per dozen, 70c; per 100, $5.00.

SALVATOR ROSA, a8, deep rose flushed with bluish, a fine large double flower, suitable for forcing or bedding.
Each, 7c; per dozen, 75c; per 100, $5.00.

TOURNESOL, b7, scarlet, margined yellow, one of the best for forcing. Each, 8c; per dozen, 75c; per 100, $5.50.

YELLOW ROSE, a9, large golden yellow, fine bedder and sweet scented.... Each, 4c; per dozen, 50c; per 100, $3.00.

CHOICEST MIXED, from named varieties, extra fine.
Each, 5c; per dozen, 50c; per 100, $3.50.

FINE MIXED, including all colors and shades.
Each, 4c; per dozen, 45c; per 100, $3.00.
Our "Home Collection No. 1" consists of fifty Double Flowering Tulips carefully selected from named varieties, and will produce handsome large double flowers. Price, $1.75; not prepaid.

"Home Collection No. 2" consists of twenty-five double and twenty-five single flowering Tulips selected from named varieties. Price, $1.60; not prepaid.

McCULLOUGH'S "NORWOOD" collection of DOUBLE TULIPS consists of 200 superfine, mixed Double Tulips. Price, $6.00; not prepaid.

PARROT OR DRAGON TULIPS

VERY large flowers of singular and picturesque forms and brilliant colors; very beautiful and interesting. The petals are curiously fringed or cut. They form showy flower beds or borders, are of endless variety of form and color, stand a long time when cut, and should be grown in every flower garden in quantity.

CONSTANTINOPLE, large red flowers, tipped orange.
Each, 4c; per dozen, 39c; per 100, $2.75.

CRAMOISIE BRILLIANT, deep crimson, with large black star-shaped center, extra fine.
Each, 4c; per dozen, 39c; per 100, $2.75.

LUTEA MAJOR, large bright yellow, feathered with red and green.
Each, 4c; per dozen, 39c; per 100, $2.75.

PERFECTA, striped yellow and scarlet.
Each, 4c; per dozen, 39c; per 100, $2.75.

FINEST MIXED COLORS.
Each, 4c; per dozen, 39c; per 100, $2.50.

Amaryllis

ALL varieties of the Amaryllis are ornamental. Plant in equal parts sandy loam and leaf-mould. If convenient, start them in a hot-bed, beginning with fifty degrees of heat, increasing to sixty or seventy; when the leaves appear water carefully, but in not too great a quantity.

When through blooming, water should be gradually withheld until the tops are dry; then store away in a cool place safe from frost until season arrives for starting them again.

<table>
<thead>
<tr>
<th>Variety</th>
<th>Each</th>
<th>Per Doz.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belladona Major, trumpet-shaped, dark rose and white</td>
<td>$0.25</td>
<td>$2.50</td>
</tr>
<tr>
<td>Formosissima, velvety crimson</td>
<td>$1.15</td>
<td>$1.25</td>
</tr>
<tr>
<td>Johnsonii, crimson, striped with white</td>
<td>$0.30</td>
<td>$3.25</td>
</tr>
<tr>
<td>Vittata Hybrids, beautifully striped, flaked and feathered varieties; this grand strain, the result of crossing and recurring, combined with careful selection, has resulted in a strain of strong, vigorous growth, producing from four to six flowers on a stalk, which are perfectly circular in outline and of enormous size, ranging in color from deep crimson to dazzling orange-scarlet and from light rose to almost pure white, the darker varieties generally being striped with a band of white, the lighter colored ones having bright crimson lines and variegations</td>
<td>$0.50</td>
<td>$5.00</td>
</tr>
</tbody>
</table>
Narcissus or Daffodils

A BEAUTIFUL class of early blooming flowers, both for outdoor blooming and for use as cut flowers in the house. Their delicious fragrance, easy culture and thriftiness, entitle them to the greatest popularity.

The double and single sorts are perfectly hardy and need not be disturbed oftener than once in three or four years, and not then unless they have become too much crowded by offsets. Plant in the Fall in good garden soil, about three or four inches deep and two to six inches apart.

The Polyanthus varieties for flowering in pots in the house are very satisfactory. They bloom about the first of February in dense clusters, two or three flower stalks to each bulb, while the earliest of all, the Paper White, will come into bloom as early as December.

A cool, natural temperature suits them best. Pot in the Fall, let them root for two or three months in the dark, then remove to the conservatory or sitting room, and water as often as the soil requires moisture.

SINGLE NARCISSUS—Continued

BICOLOR EMPRESS. Perianth white, trumpet rich yellow, serrated at edges; a magnificent large variety, bold and erect; of rare beauty for cutting. Each, 6c; per dozen, 50c; per 100, $1.00.

BICOLOR GRANDIS.

Flowers large with broad white perianth, the petals of which are wide and overlapping; trumpet yellow, beautifully fringed, a flower of great substance and fine for cutting; late flowering and valuable for succession.

Each, 6c; per dozen, 60c; per 100, $1.00.

BICOLOR VICTORIA. Perianth creamy white, trumpet rich yellow, delicately perfumed; a strong grower with massive flowers, which stand boldly erect. Each, 6c; per dozen, 50c; per 100, $2.50.

EMPEROR. Perianth deep primrose, trumpet large, rich golden yellow; one of the finest Daffodils in cultivation, which should be in every collection; a magnificent flower, much prized for cutting. Each, 6c; per dozen, 60c; per 100, $1.00.

FIGARO. Perianth lemon yellow, cup yellow shaded with orange alabaster and well-formed flower. Each, 6c; per dozen, 40c; per 100, $2.50.

GOLDEN SPRU. Perianth deep yellow, trumpet golden yellow; a charming, highly perfumed flower, flowering early and freely. Each, 6c; per dozen, 50c; per 100, $3.50.

HENRY IRVING. Perianth deep yellow, trumpet golden yellow; a fine old variety, good for garden culture.

Each, 6c; per dozen, 50c; per 100, $3.50.

MRS. LANGTRY. Pure white perianth, broad and overlapping; cup pale primrose shading to white, with a free flowering variety.

Each, 6c; per dozen, 40c; per 100, $2.50.

POETICUS. (Pheasants' Eye or Poet's). Flowers pure white with distinct red crown, sweet scented.

Each, 6c; per dozen, 35c; per 100, $2.00.

POETICUS KING EDWARD VII. A magnificent, large flowering early variety with a broad, round white flower with yellow cup edged deep red. Ex. 6c; per dozen, 50c; per 100, $3.50.

POETICUS ORNATUS. Large, pure white flowers, saffron cup, tinted with rose scarlet; very early.

Each, 6c; per dozen, 35c; per 100, $2.00.

PRINCEPS. Large flowers with light yellow perianth and deep yellow trumpet. Each, 6c; per dozen, 40c; per 100, $2.75.

SIR WATKIN. Perianth sulphur yellow, cup slightly deeper in color and tinged with orange; flowers very large and freely flowering. Each, 6c; per dozen, 50c; per 100, $3.50.

STELLA. Perianth white and slightly twisted, yellow crown; flowers large, free blooming and one of the best for naturalizing.... Each, 6c; per dozen, 35c; per 100, $2.25.

TRUMPET MAJOR. Flowers large and of uniform deep golden yellow, comes into bloom early and is excellent for forcing, bedding or naturalizing.

Each, 6c; per dozen, 40c; per 100, $2.50.

VON SION SINGLE. Large flowers of rich yellow color; an excellent sort for forcing, bedding or naturalizing.

Each, 6c; per dozen, 40c; per 100, $2.50.

Price per dozen and single bulb includes postage.

SINGLE NARCISSUS

ALBICANS. (White Spanish Daffodil). Perianth white, trumpet primrose changing to pure white; a beautiful flower, delicately musk scented.

Each, 6c; per dozen, 50c; per 100, $3.50.

BARRI CONSPICUA. Large, broad yellow perianth; broad, short crown edged with scarlet; a robust, strong grower and free bloomer, should be grown in quantity for cutting, as it lasts longer than most sorts.

Each, 6c; per dozen, 40c; per 100, $2.75.

Persons purchasing Narcissus at our counters or who wish to pay their own express charges may deduct 5c per dozen from these prices when bought by the dozen. Prices per 100 not prepaid.
DOUBLE NARCISSUS

ALBA PLENA ODORATA. The double Poeticus; flowers pure white, large, double, very fragrant, one of the finest for all purposes. ... Each, 4c; per dozen, 35c; per 100, $2.25.

INCOMPAREBLE. Pure yellow and orange mixed, full double flower, large, varying somewhat in shade like the single variety, from pale citron yellow to deep orange. Each, 5c; per dozen, 40c; per 100, $2.50.

ORANGE PHOENIX. Large double white, with orange segments in the center. Each, 5c; dozen, 50c; 100, $3.50.

SILVER PHOENIX. Largest of the Double Narcissus, pale creamy white with sulphur, delicate fragrance, fine for cutting or for decorating purposes. Each, 6c; per dozen, 50c; per 100, $3.50.

VON SION. The famous "Old Double Yellow Daffodil," rich golden yellow perianth and trumpet; one of the best forcing sorts. Each, 5c; per dozen, 40c; per 100, $3.00.

VON SION, SELECTED EXTRA LARGE. True Northern grown Dutch Bulbs. Each, 5c; dozen, 50c; 100, $3.50. Price Per Dozen and Single Bulb Includes Postage.

Narcissus Poeticus

Narcissus Poetaz Hybrids

These new hardy cluster-flowered hybrids between Poeticus and Polyanthus are healthy, strong and tall growers, some of the varieties attaining a height of 2 feet. The flowers are more like Poeticus in character, but are borne in clusters like the Polyanthus. Planted in permanent quarters they form large luxuriant clumps.

ALSACE, very early flowering, color pure white with yellow cup faintly edged red on opening. Each, 6c; per dozen, 50c; per 100, $1.00.

ELVIRA, pure white with yellow eye, large flower of good substance, 3 to 4 flowers on a stem; strong grower. Each, 6c; per dozen, 50c; per 100, $3.50.

IDEAL, pure white with dark orange eye, large truss of 6 to 7 flowers, beautiful color. Each, 6c; per dozen, 50c; per 100, $3.50.

IRENE, sulphur yellow, changing to light yellow, orange eye; large broad truss bearing 8 to 9 flowers. Each, 6c; per dozen, 50c; per 100, $3.50.

TRIUMPH, perianth white, with yellow eye, the largest flowers of this section, 3 to 4 flowers on a stem. Each, 6c; per dozen, 50c; per 100, $4.00.

If you want flowers in your house this winter or in your garden next spring you must plant bulbs this fall.

Prices per Dozen and Single Bulb
Include Postage

Polyanthus Narcissus

Beautiful, free flowering, deliciously sweet scented flowers of the easiest culture: suitable for forcing or for growing in water in the same way as the Chinese Sacred Lilies. Their tall spikes of bloom, bear from 6 to 12 flowers each. If planted in open borders, they must be well protected by a covering of litter.

PAPER WHITE GRANDIFLORA. An improved large flowering form of the Paper White, possessing all the good qualities of that popular and easily grown variety. It is more vigorous and earlier, producing pure white flowers, large and very fragrant, one of the finest for all purposes. Is largely used for early forcing for cut flowers, being brought in without difficulty early in December. Can be grown in bowls of water and pebbles the same as Chinese Lilies.

Selected Bulbs. Each, 5c; per dozen, 45c; per 100, $3.25.

Mammoth Bulbs, of special value for growing in water. Each, 6c; per dozen, 50c; per 100, $4.00.

GRAND MONARQUE, pure white flowers of largest size, with yellow cups; borne on large heads. $0.06 $0.50 $1.00.

GRAND SOLEIL D'OR, rich yellow flowers with orange cup $0.06 $0.50 $1.00.

GLOIRE DES ISLES, with orange cup $0.06 $0.50 $1.00.

MONT GENIS, A splendid large flowering variety having broad round over-lapping petals of white, and large rich yellow cup; of compact growth, carrying large clusters of flowers $0.06 $0.50 $1.00.

MIXED POLYANTHUS NARCISSUS. $0.05 $0.45 $2.25

Narcissus Paper White Grandiflora

Persons purchasing Narcissus at our counters or who wish to pay their own express charges may deduct 5c per dozen from these prices when bought by the dozen. Prices per 100 not prepaid.
Crocus

**CHINESE SACRED LILY OR ORIENTAL NARCISSUS**

All orders should include these bulbs, as they have become most popular through their own merits, flowering in water and gravel in five to six weeks from time of planting. They grow well in pots of soil, but the most popular way of blooming them is as follows:

Put about one inch of sand in a shallow bowl, or similar vessel, about four inches deep; place the bulb on this, and pack it firmly with small pebbles or pieces of rock; then fill it with water to the top of pebbles, and place in a warm sunny window. The bulb will at once commence a rapid growth, and bloom in five or six weeks. Add fresh water as often as necessary.

**MAMMOTH BULBS**, each. 15c (if by mail, 20c each): by express not prepaid, per doz., $1.50.

**LILY BOWLS.** For Chinese Sacred Lilies and Polyanthus Narcissus: imitation cut glass, to hold 3 bulbs, each, 25c.

**PEBBLES**, for filling Lily Bowls, per quart 10c.

**Jonquils**

Excellent for early blooming. Charming, large, golden and deliciously odoriferous flowers, freely produced, of the finest effect either in garden, greenhouse or conservatory. May be successfully grown by everyone. Put six in a five inch pot and treat same as Hyacinths.

<table>
<thead>
<tr>
<th>Each</th>
<th>Per 100</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Campanelle Rugulosus Double Flowering.</strong> double form of the large flowering Campanelle: a novelty of great merit.</td>
<td>$.04</td>
</tr>
<tr>
<td><strong>Double</strong>, fine golden yellow, very fragrant.</td>
<td>.04</td>
</tr>
<tr>
<td><strong>Campanelle</strong> single, golden yellow, very large.</td>
<td>.04</td>
</tr>
<tr>
<td><strong>Odorus Rugulosus</strong>, large flowering, deep yellow, crinkled flowers, exceedingly fragrant and very desirable for forcing or open garden.</td>
<td>.04</td>
</tr>
<tr>
<td><strong>Single</strong>, sweet-scented, deep yellow.</td>
<td>.04</td>
</tr>
</tbody>
</table>

**Autumn Flowering Crocus**

Very effective hardy bulbous plants which bear their large flowers in the Autumn—and most of them without foliage, the latter appearing the succeeding Spring. For this reason they appear to best advantage when nestled in the grass especially on terrace or hillside. In congenial locations they thrive, increase and flower year after year.

**SPECIOSUS**, bright lavender colored flowers feathered with blue; bright orange anthers. Per dozen, 35c; per 100, $2.50.

**VERSICOLOR**, large flowers, varying in color from purple to white. Per dozen, 35c; per 100, $2.50.

**GIANT FLOWERING CROCUS**

We offer a set of Giant Flowering Crocus—new seedlings—and great improvements on older varieties both in size of flowers and in coloring. The bulbs of these giants are very large, and capable of producing several flowers. For winter flowering in pots—grown cool—they are magnificent, as well as for out door culture.

**DISTINCTION**, soft reddish pink; a distinct, rare color in Crocuses. Per dozen, 40c; per 100, $2.75.

**DOROTHY**, light porcelain blue; a very fine self color. Per dozen, 40c; per 100, $2.75.

**WHITE GIANT**, pure white, large elongated flowers; the largest of all white Crocuses; extra. Per dozen, 40c; per 100, $2.75.

Prices on Crocus include postage. Customers may deduct 3c per dozen, 10c per 100 if sent by express at their expense.
Calla Lilies (Richardia)

An old favorite, and of easy culture; the only requisite for successful culture is rich soil and plenty of water when growing. By allowing them to rest through the Summer, an abundance of bloom may be had the following winter.

White Calla or Lily of the Nile. This old favorite is too well known to require any description.

Extra Large Bulbs postpaid, each 30c; per dozen $2.00
Large Bulbs postpaid, each 20c; per dozen $2.00

Burbank’s Golden Hybrid. A yellow Calla of great beauty. It has the habit of growth of the white variety, with flowers of same size and shape but of a rich golden-yellow color; the foliage is dark green, with a number of creamy-white spots, which add much to its beauty. Each 30c; per dozen $3.00

Godfrey’s Everblooming Calla, short sturdy growth; very free flowering; medium sized white flowers; excellent for cutting. Each 25c; per dozen $2.50.

Spoted Leaf Calla (Richardia Alba Maculata). This plant is always ornamental, even when not in flower, the dark green leaves being beautifully spotted with white. In addition to its usefulness as a pot plant it makes a fine thing for planting in the garden in the Summer, being very effective. Postpaid, each 20c; per dozen $2.00.

Freesia

This is one of the most popular and charming bulbs we offer for pot culture, flowering in the winter and spring, in the conservatory or window garden. Six bulbs should be planted in a four inch pot. They force readily, and can be had in bloom by Christmas if desired. The flowers are produced six to eight on stems about nine inches high, and are particularly useful for cutting, remaining in good condition, kept in water for two weeks: the flowers are pure white, with a yellow bloated throat, and are exquisitely fragrant.

Improved Purity. A distinct and greatly improved type producing large sprays of pure white flowers of immense size and delicious fragrance. It is very free blooming and of great value for forcing for cut flowers.

Large Bulbs Per dozen, 30c; per 100, $1.75.
Mammoth Bulbs Per dozen, 40c; per 100, $2.50.
Monster Bulbs Per dozen, 60c; per 100, $3.50.
Rainbow. We can now supply this long waited for beautifully colored Freesia. Limited quantity in following colors—Blue, Lavender, Pink and Yellow.

Large Bulbs Per dozen, 75c; per 100, $5.00. Purchasers paying transportation charges may deduct 30c per dozen and 10c per 100 from these prices.

Lily of the Valley

PLANT in a shady place where they will not be disturbed for several years. For winter blooming they can be potted—twelve in a six-inch pot, and placed in a cool place till needed for blooming, then bring them out to the light and warmth, and give plenty of water. Ready for delivery about December 1st.

Clumps. For out of door planting. Each, 30c; per dozen, $3.00. Clumps can only be sent by express or freight at purchaser’s expense.

Suburban Lawn Grass Seed

Suburban Lawn Grass Seed, sown in Fall, makes beautiful and permanent lawns. It is also a good time to repair damage done by Fall grass, by raking it out as soon as it dies down and sowing Lawn Grass Seed on the bare spots.
Lilies

No class of plants capable of being cultivated out of doors possesses so many charms; rich and varied in color, stately and handsome in habit, profuse in variety, and of delicious fragrance, they stand prominently out from all other hardy plants, and no herbaceous border, however select, should be without a few of its best sorts. With a well selected collection, Lilies may be in bloom from June till October.

Cultivation—They should be planted in good, rich, loamy soil, abundantly mixed with very rotten cow manure. Plant about four inches deep, and during the Winter it is advisable to cover the surface of the bed with a thin layer of manure, which will not only afford a slight protection to the bulbs, but will materially enrich the soil. In Spring the manure may either be removed or dug in between the rows.

Pot Culture—The best soil to use is a rich loam, with the addition of one-third well-rotted manure. Select a large sized pot, say eight or ten inches, so as to allow of deep planting—a most essential matter where there are upper roots to protect. Dust a little charcoal about the bulb to keep it fresh, and cover at least two inches with soil.

After potting, one of the most important things to observe is the proper placing of the pots containing the bulbs. Like all other bulbs, to get the best results in flowering, the pots must be filled with roots before the top starts to grow; and to do this, they must be placed in some cool place and excluded from the light, until, on examination, the roots are found to be formed around the ball of earth.

Orders for Lilies cannot be filled before November, excepting for Candidum and Harsisi, which are ready August 1.

Prices on single bulbs are postpaid. By the dozen or hundred they will be forwarded at expense of purchaser.

AURATUM, (Golden-banded Lily). Undoubtedly one of the finest. Its large, graceful, fragrant flowers are composed of six petals of a delicate ivory-white color, thickly studded with chocolate crimson spots, and striped through the centre with a golden-yellow band; 3 to 5 feet.

Large Bulbs, 8 to 9 inches, each, 20c; per dozen, $1.00; per 100, $10.00.

Extra Large Bulbs, 9 to 11 inches, each, 60c; per dozen, $6.00; per 100, $5.00.

CANDIDUM, (Annunciation or Madonna Lily). One of the most popular of garden Lilies. The flowers are pure white and very fragrant, borne on long stems. To succeed with it, it should be planted early in the autumn, so that it can make some growth before frost; 3 to 4 feet; May-June.

Large Bulbs, each 20c; per dozen, $1.50; per 100, $10.00.

Extra Large Bulbs, each 25c; per dozen, $2.25; per 100, $15.00.

HARRISII, (Bermuda Easter Lily). This splendid Lily is undoubtably one of the best for house culture, as it comes quickly into bloom and flowers freely. The flowers are trumpet shaped, pure waxy white and delightfully fragrant. Bulbs should be potted in a rich soil, using a five to eight-inch pot, according to the size of bulb, and the pots plunged in a cold frame or kept in a dark, cold place, to get a strong root growth before the top starts; when well rooted they may be brought into gentle heat and forwarded to bloom.

Small Bulbs, 5 to 7 inches, each 20c; per dozen, $2.00; per 100, $15.00.

Large Bulbs, 7 to 9 inches, each 40c; per dozen, $4.25; per 100, $30.00.

LONGIFLORUM FORMOSUM. The plants are of healthy, strong growth—about 3 feet high and produce beautiful, snow white, trumpet shaped flowers, 6 to 8 inches long. It is perfectly hardy, blooming in the open in June and July. This Lily is also a very important winter flowering type.

Small Bulbs, 6 to 8 inches, each 30c; per dozen, $3.25; per 100, $25.00.

Large Bulbs, 7 to 9 inches, each 40c; per dozen, $4.25; per 100, $30.00.

LONGIFLORUM GIANTANUM. A splendid type, later flowering than the others but of strong, free, healthy growth, and while it can be forced into bloom for Easter it is just the thing for Decoration Day and later flowering; quite hardy and good for outdoor planting.

Large Bulbs, 7 to 9 inches, each 40c; per dozen, $4.25; per 100, $30.00.

SPECIOSUM. "Japan Lily." The varieties of this class are magnificent border plants, and also excellent for pot culture. All are perfectly hardy, and are among the most satisfactory Lilies to grow.

SPECIOSUM. ALBUM, pure white, very fragrant. Large Bulbs, 8 to 9 inches, each 40c; per dozen, $4.00; per 100, $30.00.

Extra Large Bulbs, 9 to 11 inches, each 60c; per dozen, $6.00; per 100, $50.00.

SPECIOSUM. RUBRUM or ROSEUM. White, suffused and spotted with crimson.

Large Bulbs, 8 to 9 inches, each 40c; per dozen, $4.00; per 100, $30.00.

Extra Large Bulbs, 9 to 11 inches, each 60c; per dozen, $6.00; per 100, $50.00.

TIGRINUS. "Tiger Lily." Orange salmon, spotted with black. Each 20c; per dozen, $2.00; per 100, $15.00.

TIGRINUM FLORA PLENO, "Double Tiger Lily." This is a plant of stately habit, bearing an immense number of double, bright orange red flowers, spotted with black. to 5 feet. August. Each 25c; per dozen, $2.25; per 100, $20.00.

If you contemplate making a Lily bed, kindly give us dimensions of same, and we will be pleased to submit you an estimate, stating suitable varieties and lowest cost.
Iris, Spanish (Iris Hispanica)

These have appropriately been called "the Orchids of the Hardy Flower Garden." They are of the simplest culture, succeeding in almost any soil or position. The bulbs should be planted 2 to 3 inches deep and 6 inches apart, early enough in the autumn to allow them to make some growth before hard frost comes. For best effect they should be planted in beds or groups of 25 to 100 or more bulbs—the larger the number the finer the effect. They flower in June, and the bulbs may either be lifted or allowed to remain for another season.

British Queen, pure white, the largest and best.

Chrysolora, canary yellow, large flower; early.

King of the Blues, rich dark blue, an especially good variety.

La Tenderness, creamy white, large flower, tall growing.

Louise, light blue, very large, finest for cutting.

The above varieties, each 5c; per doz., 46c; per 100, $3.00.

FINEST MIXED. All Colors, each, 5c; per doz., 46c; per 100, $3.00.

Japanese and Liberty Iris. See page 25.

Ixias

These are among the most graceful and beautiful winter-flowering bulbs. The colors are rich and varied, the center differing in color from other parts of the flower. Plant twelve bulbs in a six-inch pot and set in a cool place, water sparingly until some growth is made, then remove to warmer quarters to bloom.

Mixed Varieties. All colors. Per doz., 30c; Per 100, $2.00.

Oxalis

Buttercut. A splendid winter-blooming plant for pot culture. The flowers are pure, bright yellow, and produced in great abundance. It is very easily cultivated, and, being a strong grower, only one or two bulbs should be planted in a 5 or 6 in. pot. Per doz., 35c; per 100, $2.00.

Hyacinth Glasses

Hyacinth Glasses CAN NOT be sent by mail

Belgian or Tall Shape—Blue, Claret, Crystal and Green Colors.

Each, 25c; per doz., $2.50.

Tye or Low Shape—Blue, Claret, Crystal and Green Colors.

Each, 25c; per doz., $2.50.

Lily Bowls—For Chinese Sacred Lilies and Polyanthus Narcissus.

Imitation Cut Glass—to hold one Bulb. . . . . Each, 25c; for 3 Bulbs, 30c.

Puzzles—for filling Lily Bowls, 10c per quart.

Mushroom Spawn

Mushrooms can be successfully and profitably grown during the winter and spring months in frames under greenhouse benches, in the open fields, or in cellars or out-houses.

One pound of Spawn is sufficient for a bed 2 x 6 feet.

We supply many of the largest commercial growers in the United States and have on hand at all times in the season fresh Spawn of the best manufacture.

English Milltrack Mushroom Spawn. Our celebrated English Milltrack brand (made by the best maker in England especially for our trade) has gained an enviable reputation among critical growers for its uniform good quality, and can be thoroughly relied upon to produce a good crop of the best Mushrooms. Commercially, it is more planted than any other Spawn. It comes in pressed bricks weighing about 20 ounces. They are broken into pieces the size of a walnut and put sideways in the holes 10 to 12 inches apart each way. Prices, by express—customer to pay charges—per brick, 25c; per lb., 10c; 10 lbs., $1.75; 100 lbs., $12.00. By mail, 30c per brick, postpaid.

Treatise on Mushroom Culture, 10c, or given with an order of 10 lbs. of Mushroom Spawn.

Mushroom Culture. (Wm. Falconer.) The most practical work on the subject; $1.00.

Special Prices will be given to those who use Mushroom Spawn in quantity.

American Made Pure Culture Mushroom Spawn. A very superior article, made in this country from carefully selected spawn, which it is claimed is much more vigorous than the imported article, and will produce Mushrooms of a very superior quality and flavor. The popularity of Pure Culture Spawn is increasing rapidly and many of the large growers are now using it. They claim it is a sure crop. Amateurs have much the best results with this kind. By express—customer to pay charges—per brick, 30c; 5 bricks, $1.25; 100 bricks, $20.00. By mail, 35c per brick; 5 bricks, $1.25, postpaid.
McCullough's Selected Flower Seeds
FOR FALL AND WINTER SOWING

ON the following pages we give a list of the Best Hardy Perennials which are now so deservedly popular. Sown this fall in a cold frame or protected corner of the garden, you can have, with little trouble, an abundant supply of Columbines, Canterbury Bells, Delphiniums, Foxgloves, Gaillardias, Hollyhocks, Forget-me-nots, Daisies, Sweet Williams, etc., etc., the following season. The list also includes a choice selection of other Flower Seeds for Autumn sowing, such as Cyclamens, Pansies, Primulas, etc.

Discount on Packet Flower Seeds
For 25 Cents select 5 Five-cent, or 3 Ten-cent pkts. For 50 Cents select Packets to the amount of 65 Cents. For $1.00 select Packets to the amount of $1.30. For $2.00 select Packets to the amount of $2.65. For $3.00 select Packets to the amount of $4.00. FULL CULTURAL DIRECTIONS ON EACH PACKET. WE PAY THE POSTAGE.

Abutilon. (Chinese Bell Flower.) Finest mixture. Half Hardy Perennial.......................... 10c pkt.
Alyssum.—Sweet. Flowers pure white. ..... OZ., 25c; 5c pkt.
“ Little Gem. Dwarf compact habit. pure white flowers. ..... OZ., 40c; 5c pkt.
Antirrhinum. Grandiflorum. (Snapdragon.) Firefly, Queen Victoria, Romeo, Roseum.
Each .................. 3 pkts., 25c; 10c pkt.
“ Tall, Finest Mixed...... 5c pkt.

Aquilegia. (Columbine.) Alba Flora Plena.......................... 5c pkt.
“ “ California Hybrida, Coerulea. 3 pkts., 25c; 10c pkt.
“ “ Coerulea Hybrida.................... 10c pkt.
“ “ Double, Finest Mixed........... 5c pkt.
“ “ Single, Finest Mixed............. 5c pkt.
Bells. (Double Daisy.) Longfellow. Large dark rose; extra fine. 10c pkt.
“ “ Snowball. Large double white, with long stems.................... 10c pkt.
“ “ Giant Double Mixed. Extra fine. 10c pkt.
Campanula, Persicifolia Grandiflora. One of the best. 25c pkt.
“ “ Single, Finest Mixed.............. 5c pkt.
Candytuft.—Empress. Large trusses of pure white flowers, fine florists’ variety. OZ., 40c; 5c pkt.
“ White Rocket. Pure white, large truss. OZ., 20c; 5c pkt.
“ Sempervirens. A white-blooming hardy perennial. adapted for rockeries, baskets, etc.; 1 foot...... 5c pkt.
“ Gibraltarica Hybrida (Perennial.) Very fine species, with white flowers, shading off to blue; 1 foot. 3 pkts., 25c; 10c pkt.
Carnation.—Extra Choice Mixed. From the finest named varieties. 15c pkt.
“ “ Marguerite. Finest Mixed; excellent for cutting. 1/4 oz., 50c; 5c pkt.
Cineraria Hybrida Grandiflora. Finest large flowering exhibition varieties embracing the richest and most varied, showy and attractive colors. .................. 25c pkt.
Coreopsis Lanceolata Grandiflora. Bright golden yellow flowers with broad fringed petals on long stems; excellent for cutting. Hardy Perennial.......................... 10c pkt.
Cyclamen Giganteum. One of the most beautiful Winter and Spring blooming plants for the conservatory or parlor culture. 3 pkts., 50c; 25c pkt.
Delphinium, Chinese. A distinct variety growing about 1 1/2 feet high with fine feathery foliage. ...... 3 pkts., 25c; 10c pkt.
“ Elatum ( Bee Larkspur) Rich deep blue, very free bloomer. 4 feet.................... 8c pkt.
“ “ Formosum. Beautiful spikes of brilliant rich blue flowers, with a white center; 2 1/2 feet. 5c pkt.
“ Kelway’s Hybrid. The finest strain of Larkspurs. The flower spikes are still and strong, crowded with flowers, double and single, shading from light blue to the most intense indigo and purple shades. Extra fine. 10c pkt.
FLOWER SEEDS—Con't


Semperflorens. (Everblooming Hardy Garden Pink.) Finest mixed.....2 pkts., 25c; 15c pkt.

Digitalis. (Foxglove.) A splendid strain. Finest mixed.

Gailardia.—Grandiflora. The finest strain of Perennial Gail-

ardias. The flowers are of enormous size, and the colors the most varied. This is one of the hardy perennial plants that no garden should be without. In flower for about three months.

2 feet.............3 pkts., 25c; 10c pkt.

Grandiflora Compacta. Splendid varieties; 

HARDY PERENNIAL.............5c pkt.

Hollyhock. Double Crimson. Pink, Scarlet. White, Yellow and Chaters Prize Mixed. Each...10c pkt.

Lythrum. Roseum Superbum. Vigorous perennial, with spikes of rose-colored flowers through summer and autumn; useful for cutting; 2 feet..................3 pkts., 25c; 10c pkt.

Mignonette, Allen's Defiance. Enormous spikes, with individual florets of immense size, fragrant, excellent for forcing.

Oz., 75c; 10c pkt.

Mignonette, Machet. Dwarf pyramidal growth, large spikes; delectably fragrant; one of the best for forcing. Oz., 75c; 3 pkts., 25c; 10c pkt.

Myosotis Alpestris Victoria. (Forget-Me-Not). Large, bright azure blue flowers, very fine..............10c pkt.

Myosotis Palustris. The true forget-me-not; beautiful blue flowers; 6 inches..................3 pkts., 25c; 10c pkt.

Myosotis Palustris Semperflorens. A charming dwarf "forget-me-not," continuing to bloom from early Spring until Autumn; blue.

3 pkts., 25c; 10c pkt.

MASTODON PANSIES


Adonis. Light blue flowers, marked with a yellowish-white face and large dark blotches..............2 pkts., 25c; 15c pkt.

Blue Perfection. The best dark blue flowers of immense size...15c pkt.

Candidissima. The finest and largest pure white flowers........15c pkt.

King of the Blacks. Flowers of immense size, nearly all jet black and velvety in substance..............2 pkts., 25c; 15c pkt.

Madame Perrett. Colors are dark wine, pink and red, with edges of petals frilled and bordered white.........2 pkts., 25c; 15c pkt.

Meteor. Flowers a beautiful shade of wine red, very free bloomer.

2 pkts., 25c; 15c pkt.

Panama Pacific. Flowers of immense size, deep yellow.

2 pkts., 25c; 15c pkt.

Parisian Yellow. Flowers of pure yellow, of grand form and size.

2 pkts., 25c; 15c pkt.

Vulcano. Flowers a rich, velvety burgundy-red, of immense size; finest red pansy grown.

2 pkts., 25c; 15c pkt.

McCullough's "Premier." This strain is saved from the finest flowers from the best growers of pansies. The plants are compact and of robust growth. Florists and amateurs desiring charming "show" flowers should not neglect this strain, as it is the result of many years careful selection and hybridization. ½ oz., $2.00; 25c pkt.

McCullough's Special Mixture. A superior mixture, selected from choice, large flowering strains of English, French and other European growers.

½ oz., $1.25; 15c pkt.

Fine Mixture of Bedding Pansies. The old-fashioned Pansies. Our mixture contains all the most showy and distinctly marked varieties. For freedom of bloom none surpass them....½ oz., 25c; 5c pkt.
FLOWER SEEDS—Con't


Petunia—Single. McCullough's Mammoth. The finest mixture procurable. 3 pkts. 50c; 20c pkt.

Phlox—Perennial Hybrids. (Phlox Decussata.) Tall-growing, perfectly hardy class, with immense trusses of large and beautiful flowers, in the greatest variety of colors; 3 feet. 3 pkts., 25c; 10c pkt.

Poppy—Iceland. (Papaver Nudicaule.) One of the most effective and beautiful. They are perfectly hardy and produce an endless profusion of flowers, graceful habit, with pretty fern-like foliage; finest mixed. 3 pkts., 25c; 10c pkt.

Pyrethrum—Single Hybrids. Large flowers, choicest colors, saved from named varieties. Finest mixed. 3 pkts. 25c; 10c pkt.

Shasta Daisy. A grand, large-flowering Daisy, hardy, robust growth and produces larger and finer flowers each season as the plants increase in strength. 3 pkts. 25c; 10c pkt.

Stock.—McCullough's Cincinnati Market. A grand variety producing one long sturdy spike closely set with enormous double white flowers. A fine border plant. 3 pkts. 25c; 10c pkt.

Stock.—Princess Alice. (Cut and Come Again.) Pure white, one of the earliest. It throws out numerous side branches, bearing clusters of fragrant blossoms. Excellent for cutting. 3 pkts. 25c; 10c pkt.

Stokesia Cyanea. A beautiful hardy perennial, growing about 2 ft. inches high, each plant producing 20 to 30 handsome lavender-blue, cornflower-like blossoms; in full bloom from July till frost. One of the best hardy border plants; fine for cutting. 3 pkts. 25c; 10c pkt.

Verbena—Mammoth Defiance. Brilliant scarlet, fine for bedding. 10c pkt.

Verbena—Mammoth Candidissima. Large trusses of pure white flowers. 10c pkt.

Verbena—Mammoth Blue. Bright blue, in various shades. 10c pkt.

Verbena—Mammoth Pink. Bright shades of pink. 10c pkt.

Verbena—Mammoth. Finest Mixed. A fine strain of beautiful colors and shades. 3 pkts. 25c; 10c pkt.

Vinca—Rosea. Rosea Alba. Alba Pura. And Finest Mixed, each. 3 pkts. 25c; 10c pkt.

Discount on Packet Flower Seeds

For 25 Cents select 6 Five-cent, or 3 Ten-cent pkts.
For 50 Cents select Packets to the amount of 65 Cents. For $1.00 select Packets to the amount of $1.30. For $2.00 select Packets to the amount of $2.65. For $3.00 select Packets to the amount of $4.00. FULL CULTURAL DIRECTIONS ON EACH PACKET. WE PAY THE POSTAGE.
WILL MAKE A BETTER LAWN THAN TURF OR SOD

McCullough’s "Suburban" Lawn Grass Seed

A mixture of the finest Dwarf Evergreen Grasses that grow and flourish during different months of the year so that a rich, deep green, velvety lawn is constantly maintained. Our mixture is the result of several years experimenting, and, as we now offer it, is unequaled. The quantity required for making a new lawn is four bushels (64 lbs.) per acre, or for renovating old lawns, two bushels (32 lbs.) per acre. For a plot 15x20, or 300 square feet, one pound is required for a new lawn, or about one-half pound for renovating.

If it is honestly made, a lawn seed mixture is very much to be preferred to any single grass, because the several varieties of grasses which compose it, mature at different seasons of the year, thus keeping the sward in good color and condition during the hot weather, not losing its color, as the single variety is liable to do.

How to Make a Lawn.—The matchless beauty of a well kept lawn instantly commands the attention of all lovers of the beautiful in Nature, because a fine lawn is an unfailling mark of intelligence and taste, to obtain which the main point is to start right. Seed will make a better lawn than turf or sod. The best soil is a good medium texture; the surface should be thoroughly pulverized and smoothed to the desired grade; remove all large stones, roots and hardened pieces of earth that can not be readily broken; ample time being allowed for the thorough settling of the soil, which is greatly aided by a few heavy showers of rain. When the soil is firm, level and suitably moist, sow "Suburban" Lawn Grass Seed at the rate of four bushels (64 lbs.) per acre. It is unwise to be too economical in the quantity of seed used, if the best results are desired. The seed should be sown broadcast and as evenly as possible, then give a thorough rolling or pat well with the back of a spade. The seed must be well firm in the soil. When the young grass attains a height of 4 or 5 inches, carefully mow with a sharp scythe. After this, according to the season, it should be mown with a lawn mower every week or ten days.

General Surface Renovating.—When your lawn has been established, you will find it to your advantage to lightly re-seed each season. As early as possible, carefully rake off all dead leaves, etc., and give the lawn a dressing of our pulverized SHEEP MANURE, or our PURE BONE MEAL at the rate of at least 500 pounds per acre, and rake in, after which sow our "Suburban" Lawn Grass Seed at the rate of two bushels (32 lbs.) to the acre; roll thoroughly or pat with the back of a spade.

Renovating in Spots or Patches.—Everyone is aware that even in the best-kept lawns unsightly spots devoid of grass will appear, which are caused by root-destroying Insects; and as these spots are not protected by a covering of turf during the winter, as a natural consequence, the chemical elements in the soil are leached out by the action of the weather, causing them to “cake” or become hard early in the spring. It is useless and a waste of seed to sow these spots unless they are carefully prepared to receive the seed. For this purpose it is our practice to cover them with either of the fertilizers mentioned above at the rate of 13 lbs. for each 300 square feet, then dig these spots up, and after raking until no trace of the fertilizers can be seen, sow our "Suburban" Lawn Grass Seed at the rate of 1 lb. to each 300 square feet. Roll thoroughly or pat with the back of a spade. When any weeding is done on the lawn immediately drop a few grains of seed wherever a weed is removed, and while the soil is disturbed press the seed into the soil.

Prices:—1/2 lb., 20c; 1 lb., 50c; 3 lbs., $1.00; 5 lbs., $1.50; ½ bu. (8 lbs.), $2.15; per bu. of 16 lbs., $4.00.
Postage Must be Added if Wanted by Mail. See Postal Rates, Second Page of Cover.

NOTE:—The price of “Suburban” Lawn Grass Seed is based upon sixteen pounds to the bushel. We mention this because there is no standard weight per bushel for Lawn Grass Seed in the United States; those who prefer to buy by weight may base their calculations in this way.

Owing to the cleaning process that our "Suburban" Lawn Grass Seed is put through it will be found to contain a much larger per cent of actual seed and less chaff than ordinary Lawn Seed.

Pulverized Sheep Manure and Pure Bone Meal are the Best Fertilizers for Lawns. See Fertilizers.
McCullough's

"SHADY-PLACE"

LAWN GRASS SEED

Of nearly all lawns there are more or less shady places, which result in having bare and unsightly spots on which the owners have difficulty in securing a satisfactory stand of grass. After many years of experimenting with different grasses, both native and foreign, we several years ago developed our present "Shady Place" Lawn Grass Seed Mixture. This mixture of grasses is adapted for such places, as it is composed of dwarf-growing grasses which are found naturally in shady locations. Should the ground have become "sour" or drainage defective, it is apt to be covered with moss. If such is the case, the moss should first be removed by the use of a sharp rake, then sow the seed at the rate of four bushels (64 lbs.) per acre, or 1 lb. to each 300 square feet, after which roll thoroughly.

Prices — ½ lb., 25c; 1 lb., 40c; 5 lbs., $1.75; 8 lbs., $2.50; per bushel of 16 lbs., $5.00.

Postage must be added if wanted by mail. See Postal Rates, second page of cover.

McCullough's Eden Park Lawn Grass Seed

To supply the demand for a Lawn Grass Seed that will meet general requirements, it has become necessary to place on the market our "Eden Park." The quality of this lawn grass seed will compare favorably with a majority of the lawn grass mixtures on the market as it contains practically the same grasses as our "Suburban" but without reclamation.

Prices — ½ lb., 15c; 1 lb., 25c; 5 lbs., $1.00; 8 lbs., $1.50; per bushel of 16 lbs., $3.00.

TERRACE MIXTURE

There is nothing more annoying than to have ground washed out. In this mixture we have put quick-growing and deep-rooted grasses. Of course, it depends a great deal on this being well started before very heavy rains.

Per lb., 35c; 5 lbs., $1.55; per bushel of 16 lbs., $4.00.

Special Mixtures For Golf Links and Putting Greens

View of one of the Putting Greens on the Golf Grounds of the Hyde Park Country Club, Cincinnati, Ohio, where our Putting Green Mixture has produced a "Green" three weeks from time of sowing the seed.

PUTTING GREEN MIXTURE

Having specialized for over three-quarters of a Century in all varieties of Grass Seeds and having become familiar with the habits and characteristics of all cultivated grasses, we were prepared to develop the Mixture of Grasess hereof offered by us, after making a careful study of the requirements for producing the most substantial turf for Putting Greens.

The numerous testimonials we have received establish the fact that our Mixture of Grasses will produce the results desired, because it has given thorough satisfaction wherever used, and produces a thick, tough, beautiful green turf. The varieties comprising this Mixture of Grasses are all the finest-beded, low-growing and most hardy kinds, and will maintain their rich, velvety green color throughout the season.

Per lb., 40c; 5 lbs., $1.75; per bushel of 16 lbs., $5.00.

Quantity of Seed to Sow. One pound of these mixtures will sow 15 x 20 feet, or 300 square feet. Four bushels should be sown to the acre. For reseeding use one-half of this quantity.

GOLF LINKS MIXTURE

We have given much attention to grasses for golf links. The mixture of grasses we offer below is composed of such varieties as will thrive here, and are the result of experiments conducted on our grounds, as well as careful observation for several years of the practical results obtained on those golf links, for which we have supplied the seed. We have always on hand all the natural grasses of Europe and America and we are familiar with the habits and merits of each. We shall be glad to prescribe for whatever the requirements of the links may be; for poor lands or rich, high and dry, or low and wet.

Per lb., 25c; 5 lbs., $1.00; 8 lbs., $1.50; per bushel of 16 lbs., $3.00.
McCullough’s Grass Seeds

We specialize in Grass Seed of all kinds and for every purpose

For many years Grass Seeds have been one of our most important specialties, and our improved and perfected facilities for handling same (at a minimum cost), either in small or car lots, enables us to offer our customers the best possible service, both as to quality and promptness in executing orders.

We have four or five different grades of Grass Seeds, especially of the Gists most in demand, such as Timothy, Blue Grass, Red Top, Orchard Grass, etc.

We will be pleased to quote lowest market prices on application.

For best results, we advise the use of our highest grades “XXXX” and “Top” Seeds.

We are the largest buyers in this section of high grade Seeds and will always pay the highest market price. Submit samples and name quantity to offer.

Our prices include delivery to freight or express depots here, purchaser paying transportation charges.

We make no charge for burlap bags for Blue Grass, Red Top in Chaff, Orchard Grass, Perennial Rye and other light Grass Seeds.

Seamless bags for Clover, Timothy, Fancy Red Top and other heavy Seeds and Seed Grain are 50c each, extra.

The number of pounds to the bushel, in brackets, is the old way of offering grasses, and is mentioned merely for reference.

We expect to adhere closely to prices quoted in this list, but owing to market fluctuations, it is impossible to guarantee.

All orders will be filled at the lowest market price on the day of receipt.

Postage Must Be Added if Wanted by Mail. See Postal Rates, Second Page of Cover.

Kentucky Blue Grass

(Kentucky Blue Grass (Poa Pratensis)

Also known as June Grass, Green Grass, etc. This is rated as the finest permanent pasture grass. Especially suited to meadows and rich lands. It is the grass of the famous and fertile limestone soils of Kentucky, and is in no lesser a favorite all around the South for its beauty.

A perfect lawn grass. Sow 30 to 40 lbs. per acre for lawn; 2 bushels (28 lbs.) to the acre for pasture (14 lbs. per bushel.)

Kentucky Blue Grass Seed, Fancy cleaned. Per lb., 30c; 7 lbs., $2.00; per bushel of 14 lbs., $3.75.

Write for special prices on large quantities and other grades.

Note:—We wish to call attention to the fact that Cincinnati is the leading market in the world for Kentucky Blue Grass Seed. We export many carloads annually, the words “McCullough” and “Kentucky Blue Grass” being very familiar to the principal Seed dealers of the world.

Orchard Grass

(Dactylis Glomerata)

Rough Cocksfoot. Perennial. Height, 3 feet. It blooms about the same time as Red Clover, making it on order a desirable mixture with that plant. It is exceedingly palatable to stock of all kinds, and its power of enduring the cropping of cattle is, considered it as one of the very best pasture grasses. Sow 25 to 35 lbs. to the acre. (14 lbs. per bushel.) Market Price.

Red Top Grass

(Agrostis Palustris or Alba)

Herb’s Grass, Quick Grass. Perennial; height 1 to 2 feet. Valuable either for lawn mixtures, mixing in hay, or permanent pasture grasses; succeeds almost everywhere, but reaches its highest state of perfection in a moist, rich soil, in which it attains a height of 2 to 2 1/2 feet. Sow, if alone, 40 to 50 lbs. per acre. (14 lbs. per bushel.)

Fancy Red Top Pure Seed. Weights, about 50 lbs. per bushel. 20c., 10 lbs., $5.25; per 100 lbs., $50.00.

Choice Red Top Seed in Chaff. Per lb., 30c; 7 lbs., $1.25; per bu. of 14 lbs., $2.25.

Perennial or English Rye Grass (Lolium Perenne)

Imported English Blue Grass. Height, 15 to 24 inches. Considered invaluable for permanent pastures. It produces an abundance of remarkably fine foliage, tolerates out close to the ground, and soon forms a compact sward. After being cut it grows up in every short time, and remains bright and green throughout the season, consequently is well adapted for lawn mixtures. Valuable for shady places. Also a good variety for hay if the climate in the section it is grown in behsrent to this; then it is most nutritious. Sow, if alone, 50 to 60 lbs. per acre. (24 lbs. per bushel.) Per lb., 25c; 12 lbs., $2.25; per bushel of 24 lbs., $4.00.

Impossible to quote firm prices on “Fancy Grass Seeds” at time of going to press.

Write for special prices on New Crop Seeds.

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硬百茅（Festuca Duriuscula）

**PERENNIAL.** Height, 12 to 24 inches. Thrives well in dry situations. The herbage is decidedly tender, but the lower heads, when ripe, become hard. Sow, if alone, 30 to 35 lbs. per acre. (12 lbs. per bu.) Market Price.

**Italian Rye Grass** (Lolium Italicum)

**BIENNIAL.** Height, 18 to 30 inches. As it is not perennial, it is not adapted for permanent pastures, but for one or two years hay it is unsurpassed. Sow, if alone, 45 to 50 lbs. per acre. (18 lbs. per bushel.) Per lb., 10c; 10 lbs., $2.00; 100 lbs., $17.50.

**Red Fescue** (Festuca Rubra)

A CREEPING-ROOTED species, forming a close and lasting turf and especially adapted for dry sandy soils. It resists extreme drought and thrives on poor soils; also valuable for shady places in lawns as well as for playgrounds. 40 lbs. to the acre. (24 lbs. per bushel.) Price on application.

**Rhode Island Bent** (Agrostis Tenuis)

A fine grass, chiefly used for pastures and lawns, for which it is one of the best. (12 lbs. per bushel.) Sow 25 to 40 lbs. per acre. Write for prices.

**Sweet Vernal Grass**

For a mixture with pasture grasses it is valuable on account of its vernal growth, and also for continuing to throw up root foliage late in the autumn. Its chief merit is its fragrant odor, which the leaves emit when partially dry, thus sweetening hay. Sow 3 to 5 lbs. per acre with other grasses.

**True Perennial** (Anthoxanthum Odoratum)

**Annual.** (Anthoxanthum Odoratum Puelli.) Much smaller than the perennial. Write for prices.

Impossible to quote from prices on "Fancy Grass Seeds" at time of going to press.

Write for special prices on New Crop Seeds.

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**McCULLOUGH'S MIXED GRASSES for Meadows and Pastures**

**AFTE**R years of experimenting we have aided largely in establishing the fact that a thicker and more prolonged growth is produced by a mixture of several varieties than when only one or two are used. There are always certain grasses that are especially adapted to certain kinds of soils, and these are so carefully combined in our mixtures that in our Mixture for Permanent Pastures, grasses will be found that mature at intervals during the season, thereby insuring continuous pastureage, while our Mixture for Permanent Meadow will furnish excellent hay as well as late pastureage.

We are prepared to furnish seeds adapted to all soils and all situations, and for all purposes, composed of grasses for light, medium or heavy soils; by light soil we mean that which is more or less of a sandy or gravelly nature; the heavy, clay and heavy loams; while the medium is an intermediate between these two. A light, wet soil, with respect to the grasses suited to it, may be considered same as to the heavy soils, and a dry, heavy soil, more as to light soils.

Our best mixture is made entirely with our choice reconditioned seeds, while in our second quality we use the same seeds, but without reconditioning, and will be equal to the qualities usually to be had on the market. Our mixtures will all have a uniform weight of 16 pounds to the bushel. Quantity to be used per acre, one and one-half to two bushels, and half this quantity for renovating. In ordering, always state the soil and position on which you wish to use it.

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**First Quality Mixtures**

**For Meadows**

<table>
<thead>
<tr>
<th>Per lb.</th>
<th>30c</th>
<th>5 lbs.</th>
<th>$3.25</th>
<th>bu. of 16 lbs.</th>
<th>$4.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>For Permanent Pasture</td>
<td>30c</td>
<td>5 lbs.</td>
<td>$3.25</td>
<td>bu. of 16 lbs.</td>
<td>$4.00</td>
</tr>
<tr>
<td>For Pasture and Hay in Orchard</td>
<td>30c</td>
<td>5 lbs.</td>
<td>$3.25</td>
<td>bu. of 16 lbs.</td>
<td>$4.00</td>
</tr>
<tr>
<td>For Marshy Grounds</td>
<td>30c</td>
<td>5 lbs.</td>
<td>$3.25</td>
<td>bu. of 16 lbs.</td>
<td>$4.00</td>
</tr>
<tr>
<td>For Sandy and Rocky Grounds</td>
<td>30c</td>
<td>5 lbs.</td>
<td>$3.25</td>
<td>bu. of 16 lbs.</td>
<td>$4.00</td>
</tr>
</tbody>
</table>

Postage must be added if wanted by mail. See Postal Rates, second page of cover.

We specialize in Grass Seed of all kinds and for every purpose.

For larger quantities—write for special prices.

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**Second Quality Mixtures**

**For Meadows**

<table>
<thead>
<tr>
<th>8 lbs.</th>
<th>$2.00</th>
<th>bu. of 16 lbs.</th>
<th>$3.75</th>
</tr>
</thead>
<tbody>
<tr>
<td>For Permanent Pasture</td>
<td>8 lbs.</td>
<td>$2.00</td>
<td>bu. of 16 lbs.</td>
</tr>
<tr>
<td>For Pasture and Hay in Orchard</td>
<td>8 lbs.</td>
<td>$2.00</td>
<td>bu. of 16 lbs.</td>
</tr>
<tr>
<td>For Marshy Grounds</td>
<td>8 lbs.</td>
<td>$2.00</td>
<td>bu. of 16 lbs.</td>
</tr>
<tr>
<td>For Sandy or Rocky Grounds</td>
<td>8 lbs.</td>
<td>$2.00</td>
<td>bu. of 16 lbs.</td>
</tr>
</tbody>
</table>

Sheep Fescue (Festuca Ovina)

**PERENNIAL.** Height varies from 6 to 20 inches. Grows naturally on light, dry, sandy soils. Sheep are very fond of it. (14 lbs. per bushel.) Sow 30 to 35 lbs. per acre. Price on application.

**Tall Meadow oat Grass** (Avena Elatior)

A perennial. Has broad, flat leaves, and grows about 3 feet high; has an abundance of long, fibrous roots, penetrating deeply in the soil, enabling it to withstand drought and cold. Sow 25 to 30 lbs. per acre. Market Price.

**Timothy** (Phleum Pratense)

Herb's Grass, Cat's-tail Grass. This grass stands at the head for meadows. Never use less than a peck to the acre, then up to one-half bushel, as to circumstances. Write for prices.

**Various Leaved Fescue** (Festuca Heterophylla)

A very early, hardy perennial, 2 to 3 feet high, thriving best in cold, moist soils. Yields heavily and is valuable in grass mixtures for permanent meadows. It grows very well in the shade, and is highly recommended for shaded lawns and woodland parks. 40 lbs. to the acre. Market Price.

**Wood Meadow Grass** (Poa Nemoralis)

No grass is better adapted for pleasure grounds, particularly under trees, as it will not only grow in such places, but forms a fine sward where few other grasses can exist. Sow 20 to 25 lbs. to the acre. Market Price.

We specialize in Grass Seed of all kinds and for every purpose.
McCULLOUGH'S HIGH-GRADE CLOVER SEED

View of a Field of Alfalfa Clover grown in territory contiguous to Cincinnati

Alfalfa, or Lucerne (Medicago Sativa)

A LAFALFA is one of the most profitable crops the dairyman or stock farmer can raise, due to the high yield of hay which contains a large percentage of protein. Alfalfa as grown in the United States yields more than twice the digestible nutrients that Red Clover does and more than three times the digestible protein to the acre. Alfalfa and corn make a perfectly balanced ration. Many farmers are using it in their rotation to take the place of Red Clover. This practice is satisfactory where the soil contains a large supply of lime and organic matter and the seed has been inoculated, or the land has been in Alfalfa previously.

Alfalfa is best adapted to steep limestone hillsides and gravelly river bottoms, where the water can get away from the roots. Will grow on acid soils providing the water is drained off and sufficient lime is added to correct the acidity.

Seeding Alfalfa

The ground should be plowed in late Fall and worked in Spring once or twice to kill the weeds. If the land is acid it should be limed at the rate of three tons ground limestone to the acre. With a Wheat drill sow 20 to 25 lbs. of best grade non-irrigated inoculated Alfalfa seed with one bushel of 60 day Oats as a nurse crop to the acre any time between April 15th and May 10th. Apply 400 lbs. of a good high grade fertilizer, carrying a small per cent of ammonia and high per cent of phosphorus to the acre. If land is to be seeded following early potatoes, work ground up with disc and drag down. Sow seed the same as in Spring, omitting the Oats as a nurse crop. Where land is being seeded to Alfalfa for the first time it will pay to inoculate the seed with Edwards' Legume Bacteria for Alfalfa. The bacteria will be present and if there is not enough available nitrogen present they will gather the nitrogen from the air and supply your young plants, thus insuring a good stand.

We offer American grown seed raised in the Northwest and West on non-irrigated land. It is free as possible from noxious weeds. (60 lbs. per bushel.) Per lb. 35¢; 10 lbs., $3.00.

Grimm Alfalfa

This variety of Alfalfa is being raised all over the United States. It seems to be much heartier than common Alfalfa, which is due to the division of its root system, enabling it to withstand freezing and thawing weather, droughts and other hardships which the common alfalfa will not endure.

To secure a stand the following requirements are essential—good seed bed, limestone soil, or addition of 3 tons of fine ground limestone per acre, inoculation of seed, and plenty of available plant food. Seed in the Spring or Fall of year at the rate of 15 to 20 lbs. per acre. Market Price

Price on cheaper grades given on application. For larger quantities—write for special prices.

Crimson, or Scarlet Clover (Trifolium Incarnatum)

This Clover is grown in Italy, France, Great Britain and other European countries. Was introduced into this country in 1822 and has proved especially adapted to the light sandy soils of the Eastern and Southern parts of the United States. Largely used as a cover crop in orchards.

If seeded in August it makes an early growth in the autumn, passes the Winter in a somewhat dormant but green state, makes a very early Spring growth and matures its seed and dies before Summer. It makes little or no growth in very hot weather.

Crimson Clover should be seeded shallow on a moist, reasonably fertile, well drained, well settled seed bed. Inoculation is essential when seeding the first time. Crimson Clover makes a good cover crop to be sowed on potato fields after the potatoes are dug. It makes a good growth in the Fall and early Spring and may be plowed under for potatoes the following Spring.

It may be seeded alone following any farm crop which can be removed from the land by early Summer, so that seed can be sown in late Summer or very early Fall. It may also be seeded for hay in mixture with grain, such as Wheat, Rye, Barley or Winter Oats, which are ready to cut for hay at about the same time as the Clover the following Spring.

Apply seed at the rate of 12 to 14 lbs. per acre. Per lb. 25c; 10 lbs., $2.25.
Sweet Clover is a biennial plant, which closely resembles Alfalfa. It requires practically the same soil treatment as Alfalfa, but will grow under a wider variation of soil conditions than Alfalfa.

Three things are essential—lime, inoculation and scarified seed. If the land has raised Alfalfa previously, then the addition of lime may not be necessary. Inoculation with Edwards' Legume Bacteria tends to insure a stand, by securing nitrogen for the young plant at a time when it needs it the most. Scarified seed is seed that has been so treated as to scratch or crack the hard coating and make it easy for moisture to penetrate and hasten germination, thus insuring a stand.

When Sweet Clover is inoculated it gathers nitrogen from the air and stores it in the soil for the use of future crops.

Yellow Flowered. (Melilotus Officinalis.) Is a biennial producing seed the second year and will reseed itself if left undisturbed. It requires the same care as Alfalfa. One of the most widely grown varieties which is best adapted for hay, as it blossoms three weeks earlier than the White Sweet Clover, is the Fine Perennial Clover. This variety is the finest of the Leguminosae cultivated in Europe and America.

White Flowered. (Melilotus Albus.) Is a biennial producing seed the second year and will reseed itself if left undisturbed. It is the finest variety of the Leguminosae for hay, as it blossoms three weeks earlier than the White Sweet Clover, is the Fine Perennial Clover. This variety is the finest of the Leguminosae cultivated in Europe and America.

When sowing unhulled seed in the Fall with Wheat for hay, apply 10 to 15 lbs. per acre. Do not sow unhulled seed in the Spring and expect results the same year.

Yellow Flowered, Unhulled Seed.

Per lb., 25c; 10 lbs., $2.25.

Yellow Flowered, Hulled Seed, Scarified.

Per lb., 25c; 10 lbs., $3.00.

White Flowered. (Melilotus Albus.) Is a biennial producing seed the second year and will reseed itself if left undisturbed. The White Sweet Clover is much coarser than the yellow, and is especially well adapted for soil ing purposes. Many farmers are taking advantage of this crop in the bottoms where annual flooding prevents the use of Red Clover in a crop rotation, corn being planted after it with an annual crop of wheat. Scarified seed which has been inoculated is sown at the rate of 15 lbs. per acre in the corn at the last cultivation. This makes a growth of 10 to 15 inches by the time the corn is husked off of the stalk in the fall, and is plowed under late the following Spring for corn.

It is being widely used where farmers wish to shorten their crop rotation and secure a crop of hay. To do this sow scarified seed which has been inoculated with Edwards' Legume Bacteria in the Wheat, from the middle of April to the 1st of May, at the rate of 15 lbs. per acre. The following September as much as one ton of hay per acre may be cut from this land and the next May the second growth may be turned under for corn. The Sweet Clover, being young and tender, rots early and forms a mulch which holds the water, thus making ideal conditions for a good corn crop. Mr. R. E. Simonds, of Miamitown, Ohio, won the Ohio State Championship in the 10 acre corn growing contest in 1917 with a yield of 102 bushels of corn per acre by practising this method. Farmers can increase their yield of corn from one-third to one-half by using Sweet Clover as a green manure crop.

White Flowered, Unhulled Seed.

Per lb., 25c; 10 lbs., $2.25.

White Flowered, Hulled Seed, Scarified.

Per lb., 35c; 10 lbs., $3.00.

Unhulled Seed of both varieties is very slow to germinate. Unhulled Seed (30 lbs. per bushel.) Hulled Seed (60 lbs. per bushel.)

NOTE:—We have installed scarifying machinery, and our Hulled Sweet Clover is all scarified, which increases the germination 40 to 50 per cent.
MISCELLANEOUS FARM SEEDS

The prices quoted are subject to market fluctuations. When customers are in need of large quantities, we will be pleased to submit samples and quote, on application, the lowest prices that the market will justify at the time. Please state quantities wanted when writing for prices.

SOWING RAPE

A FORAGE plant of highest value. It can be sown in April for an early crop, and for fall crop in July, August and September, and still later further South. In a few weeks from the time of sowing, sheep, hogs or cattle can be turned on it. Under favorable conditions Rape is ready for pasturing sheep or cattle within six weeks from time of sowing, and on an average one acre will carry 12 to 15 sheep six weeks to two months. When on the Rape they should at all times have access to salt. Pigs and cattle are also very fond of it. Rape has a high feeding value. It is excellent for fattening sheep and swine, produces an abundant flow of milk in cows, and when ideal pasture for weaning lambs. Its value as sheep pasture has been demonstrated in every State in the Union, and it is recommended by authorities everywhere as of superior value for hogs, furnishing the finest pasturage, or can be fed after cutting. Rape has strong-growing roots which penetrate the ground for a considerable depth. A rich, loamy soil is preferable, but it does well on sandy or stiff clays, and is excellent for spring after a crop of soy beans. When hogs have been on Rape it can be ready to feed at a season when it is most needed. It does well sown with oats. After oats are cut, the Rape grows rapidly. If the soil is rich and clean, sow broadcast; if not so clean, sow in drills and cultivate as for corn. When sown broadcast, use five to six pounds, and if in drills, two to three pounds to the acre.

Postage Must Be Added if Wanted by Mail. See Postal Rates, Second Page of Cover.

VETCHES OR TARES

THIS has been used in Europe for many years as a stock food and green manuring or cover crop. It does best if sown with rye, the latter gives it support and ensures enough growth. It makes an ideal hay and it is a pity that every American farmer does not use it. It fertilizes the ground without further trouble or cost, on account of the nitrogen it gathers from the air. It produces a peculiar vine plant with very narrow foliage and elongated flowers of pinkish white in clusters. The height when supported is frequently 4 feet. Sand, Hairy, or Winter Vetch. (Vicia Villosa.) Our stock of this is the true type, which will absolutely live through the winter, and buyers should beware when buying that they procure the right article, which is a small, round, black seed; this is far superior to Crimson Clover, as it never winter-s Wells. Sow from August 1st to October 1st, broadcast 1 to 1 ½ bushels per acre, to which we suggest adding half a bushel of winter rye or wheat. In the Spring it can be plowed in as green manure, or when in flower cut for hay. All stock Vetch—High Grade.

Short Crop—Market Price.

SPELTZ OR EMMER

THIS grain resembles wheat but is a much larger yielder, producing frequently as high as 80 bushels of grain per acre, and that on the poorest land. The hay, if cut green is desirable for horse or cattle feed, while the straw after threshing, is equal to the best wheat straw. The heads are somewhat similar to two-rowed barley. For fattening cattle, poultry, horses, sheep, pigs, etc., it is claimed to be ahead of any other grains. Cultivation similar to wheat or oats. Sow at the rate of 50 to 60 lbs. per acre.

Barley

Sow 1 ½ to 2 bushels if drilled; 2 to 2 ½ bushels broadcast. Market Price.

Choice Seed Oats

Broadcast 2 to 3 bushels to the acre.

Winter Oats, Turf, is perfectly hardy in the Southern and Middle States. Yields on good land, from 50 to 70 bushels to the acre of fine, heavy grain, weighing from 35 to 50 pounds to the measured bushel. Market Price.

White, Black and Mixed. Market Price.

SEED WHEAT AND SEED RYE

We are this season offering the following varieties of Seed Wheat. For detailed descriptions and cultural directions send for our special circular.

Poole Wheat

Is a bold smooth head, red grain and chaff red. Average height of plants 44 inches, straw stiff and stands up well on practically all kinds of soil. It is one of the best bulking and baking wheats. It ripens in Southern Ohio about the 30th of June. Sow at the rate of two bushels per acre.

Portage Wheat

Is a pure line selection from the Poole. It has a smooth head, red grain, and red kernels. It has given the highest yield at an average of 8 years of 28 varieties tested at the Ohio Experiment Station. Ripens in Southern Ohio about the 1st of July. Sow at the rate of two bushels per acre.

Fultz Wheat

Is a bold smooth wheat, red grain, white chaff, average height, 48 inches. Straw stiff and stands up well. This is well adapted to a wide variety of soil conditions and especially for fine to level black land. Ripens in Southern Ohio average years, June 29th. Sow at the rate of two bushels per acre.

Gladden Wheat

Is a pure line selection of the Gypsy wheat. It has a bearded head, smooth grain, red chaff, white. Stands up well and produces a good crop of straw. Is a vigorous grower and stands the freezing and thawing of the soils of Southern Ohio and does well on clay soils. Seed at the rate of 6 to 8 pecks per acre.

Rosen Rye

This variety often produces as high as forty to forty-five bushels per acre, while 20 bushels per acre is a low yield. The average yield for common Rye is 15 bushels per acre.

Rosen Rye produces a strong, vigorous straw; the grain is large, plum, heavy and of good color. Owing to its vigorous stoozing property, less seed is required, three to four pecks per acre proving sufficient.

Write for special prices on Seed Wheat, Seed Rye and Hairy Vetch.
INCREASE YOUR YIELD

OF ALFALFA, CLOVERS, VETCH, and other Legumes by inoculating your seed with

EDWARDS' LEGUME BACTERIA

All the requirements for successful inoculation are met in THE EDWARDS BACTERIA. These cultures are manufactured by the method originated and successfully followed for ten years at the Ontario Agricultural College and the stock cultures were secured from the Bacteriological Laboratory of that institution. There can, therefore, be no question as to their efficiency. They are prepared under the personal supervision of S. F. Edwards, formerly instructor in Bacteriology at the University of Michigan, and for nine and one-half years Professor of Bacteriology at the Ontario Agricultural College. The cultures are made according to the best principles of the science of Bacteriology, and special attention is given to keeping up the vigor and nitrogen-gathering power of the bacteria.

Cultures are made and kept in stock for legume crops as follows: Alfalfa, Sweet Clover, Red Clover, Alsike Clover, Crimson Clover, White Dutch Clover, Field or Garden Peas, Cowpeas, Sainfoin, Clover, Peas, Sweet Peas, Vetches, Cowpeas. Of this list the same culture can be used for either Alfalfa or Sweet Clover, and likewise the same culture can be used for Red, Alsike, Crimson and Dutch Clovers. All the other crops require a different culture for each as named. The entire culture may be used on less than the amount of seed for which it is made without harm to the seed. The cultures are good for six months after leaving the laboratory. The cultures are sent by mail or express prepaid, with full directions for use.

EDWARDS' LEGUME BACTERIA cultures are made in two sizes:

To inoculate 300 pounds of seed—$0.60
Directions for use on each package.

In ordering, be sure to name crop to be inoculated.

These prices mean a very low cost per acre, the exact amount depending on the amount of seed sown. The cost is less than to pay freight rates on soil from a distance, or even to haul it from a neighbor's field for soil inoculation, and the labor is much less. As seed for several acres can be inoculated in a few minutes with the pure cultures.

McCullough's High Grade Fertilizers

All Fertilizers Delivered Free on Board Cincinnati. Prices Subject to Change Without Notice.

SHEEP MANURE—Pulverized

This is a natural manure; excellent for mixing with the soil. Especially valuable for lawns, contains all the constituents for promoting a quick, luxuriant growth and a rich, green color. Use at the rate of from 500 to 600 pounds per acre, depending on the age of the plant and of sheep manure to six parts of soil. For use in the vegetable garden, spread over the surface and dig in. Being soluble, it readily makes the soil more acid. Never apply more than two inches of water can be used. 1 lb. carton. 10c; 5 lbs. 25c; 10 lbs. 50c; 25 lbs. $1.25; 50 lbs. $2.50.

PURE BONE MEAL

This is excellent for rose culture and lawns. It decomposes rapidly and is quickly effective. Should be applied at the rate of 400 to 500 lbs. per acre. Analysis: Ammonia, 2%; total phos. acid, 27%. 1 lb. 10c; 5 lbs. 40c; 25 lbs. $1.25; 50 lbs. $2.00; per bag of 125 lbs. $4.00.

VICTORY BRAND

Special Fertilizer for Garden Crops. RAPID growth, early maturity, superior quality and large yields are essentials in all garden operations. Supply these by using Victory Brand Commercial Fertilizer. Apply at the rate of 200 to 400 lbs. per acre. Analysis: Nitrogen, 2%; Total Phosphoric Acid, 10%; Potash (Latin). 1 lb. 10c; 5 lbs. 40c; 12 lbs. 80c; 25 lbs. $1.50; per bag of 125 lbs. $5.00.

EVR GREEN LAWN LIME

THE GRASS AND GARDEN TONIC

This lime is essentially a plant food, useful for correcting acid soils, also for blooming sandy soils and loosening clay soils. Should be applied at the rate of 1,000 to 2,000 lbs. per acre for sandy soils and 2,000 to 3,000 lbs. per acre for clay soils, a few weeks before applying Commercial Fertilizers. Bag of 50 lbs. $1.00; 2 bags (100 lbs.), $1.75; 5 bags (250 lbs.), $4.25; 10 bags (500 lbs.), $8.00.

NITRATO

15% Nitrogen—15% Potash. All Available in Canada, sweetening and containing 300 acids. The cheapest source of supply for Potash on the market. Used for all varieties of cultivated crops, also for trees and shrubs. Apply at the rate of 100 to 200 lbs. per acre, or may be mixed with other Commercial Fertilizers. Bag of 50 lbs. $1.00; 10 lbs. $1.90; 25 lbs. $4.00; 100 lbs. $15.00.

NITRATE OF SODA

Contains about 16% nitrogen, equal to 20% ammonia. We recommend it as the cheapest and best form in which to apply nitrogen to plants. 1 lb. 15c; 2 lbs. 25c; 10 lbs. $1.10; 25 lbs. $3.50; 100 lbs. $8.50.

EVR SWEET

AGRICULTURAL LIMESTONE

Destroys Soil Acidity—Loosens Up Clay Soils—Tightens Up Sandy Soils

PUTS soils in better mechanical condition. Apply at the rate of 2,000 to 4,000 lbs. per acre, and may be applied at any season of the year. Evr Sweet contains 87.97% Calcium Carbonate and 7.65% Magnesium Carbonate. Evr Sweet is packed in 100 lb. bags. Per bag of 100 lbs. $1.25; 10 bags (1,000 lbs.) $8.00.

HALF AND HALF

Is especially valuable for Field Crops, Potatoes and Grain. Should be applied at the rate of 400 to 600 lbs. per acre. Analysis: Ammonia, 2%; total phos. acid, 16%; potash, K2O 1. 5 lbs. 30c; 10 lbs. 50c; 25 lbs. $1.00; 50 lbs. $1.90; per bag of 125 lbs. $3.50.

ACID PHOSPHATE 16%

Some soils contain a large percentage of Nitrogen and some Potash, but still are deficient in Phosphoric Acid. This must be supplied by the application of 16% Acid Phosphates. Apply at the rate of 1,000 to 2,000 lbs. per acre, or may be mixed with other Commercial Fertilizers. Bag of 50 lbs. $1.00; 10 lbs. $1.90; 25 lbs. $4.00; 100 lbs. $8.85.

DRIED BLOOD MEAL

This is a splendid fertilizer for roses, carnations, chrysanthemums, etc., as well as for pot plants. 1 lb. 15c; 2 lbs. 25c; 25 lbs. $2.50; 50 lbs. $4.70; 100 lbs. $8.85.

LAND PLASTER

If applied as a top dressing for grass or clover crops in the Spring, it greatly increases the growth and yield of same. 200 lb. bag... $2.75.

HYDRATED LIME

3 lb. package, 10c; per bag of 50 lbs. 75c.

EXCELSIOR PLANT FOOD

For Ferns and Other House Plants

An odorless preparation, combining in a concentrated and soluble form every essential required in plants and flowers to produce vigorous growth and a profusion of flowers. It is immediately soluble in water, and available to plant life from the moment of application. Small package, 10c; medium size package, 20c; large package, 35c.
Hardy Herbaceous Perennial Plants

FOR FALL PLANTING

THE steadily-increasing demand for hardy plants has induced us to give them more attention and to increase our stock considerably. For such of our customers who are not acquainted with the different varieties, we shall be pleased to make suitable selections of the most desirable species, that once planted, with very little care, will keep the garden gay with flowers from the time frost leaves the ground until late in Autumn.

Cannot accept orders for Hardy Perennial Plants totaling less than one dollar.

ACHILLEA (Sneezewort)

Boule De Neige. (Ball of Snow.) An improved variety, bearing pure white flowers of perfect form all Summer. Fine for cut flowers. Each, 20c; per dozen, $2.00.

Eupatorium. (Barrel’s variety.) Produces brilliant yellow heads of flowers all Summer, with neat, finely-cut foliage. Each, 25c; per dozen, $2.50.

Tomentosa. (Woolly Yarrow.) Handsome cut foliage and bright yellow flowers in a multitude of flat heads during June; height about 12 inches. Each, 25c; per dozen, $2.50.

AGROSTEMMA (Rose Campion)

Erect growing plants with silvery foliage and showy flowers during June and July.

Coralita. (Golden Pink.) Bright rosy-crimson flowers; 2 1/2 to 3 feet. Each, 20c; per dozen, $2.00.

AJUGA (Bugle)

Reptans Rubra. A fine plant for the rockery and for shady situations. Large spikes of purplish-blue flowers in May. Each, 25c; per dozen, $2.50.

ALYSSUM (Madwort)

Saxatile Compactum. (Basket of Gold, Gold Tuft, Rockmadwort.) A fine plant for the rockery or border, grows 1 foot high and produces broad flat heads of yellow flowers in May. Each, 20c; per dozen, $2.00.

ANCHUSA ITALICA

Dropmore Variety. Remarkable for its free and continual flowering all Summer and the beautiful gentian-blue of its flowers; grows about five feet high. Each, 20c; per dozen, $2.00.

Myosotis Alpestris. Grows 10 to 12 inches high, producing during April and May sprays of beautiful Forget-Me-Not-like flowers of rich blue. Each, 35c; per dozen, $3.50.

ANTHEMIS TINCTORIA

The hardy Marguerites are among the most satisfactory summer-flowering perennials, growing 15 inches. Large golden yellow flowers. Each, 20c; per dozen, $2.00.

AQUILEGIA (Columbine)

CHARMING hardy plants, with distinct clear-cut foliage, bearing in countless numbers through May and June exquisite clear blue, white, rose, yellow, purple and striped blossoms. They thrive well with ordinary garden culture, but do best in partially shaded nooks.

Chrysantha. (Golden Columbine.) Golden yellow flowers with long spurs. Each, 20c; per dozen, $2.00.

Chrysantha Alba. A long spurred white variety. Each, 20c; per dozen, $2.00.

Coerulea. Flowers often three inches in diameter; the outer sepals deep blue or blue, petals white, the deep blue spur tipped green. Each, 20c; per dozen, $2.00.

Long Spurred Hybrids. Beautiful variations from the standard type. Each, 20c; per dozen, $2.00.

Canadensis. (American Columbine.) A bright red and yellow variety, very attractive. Each, 20c; per dozen, $2.00.

ARABIS (Rock Cress)

Alpina. A desirable early Spring flowering plant, adapted for edging and in the rock garden, but does equally well in the border, forming a dense carpet, completely covered with pure white flowers, which last a long time in bloom. Each, 25c; per dozen, $2.50.

Alpina Flore Pleno. A distinct double white flowering form of the above. Each, 25c; per dozen, $2.50.

ASCLEPIAS (Butterfly Weed)

Showy native plants about 2 1/2 feet high, blooming during July and August.

Incarnata Rosea. (Swamp Milkweed.) Pretty rose-flesh colored flowers. Each, 20c; per dozen, $2.00.

Tuberosa. Brilliant orange-colored flowers. Each, 20c; per dozen, $2.00.

ASTERS (Michaelmas Daisies or Starworts)

These are among the showiest of our late flowering hardy plants, giving a wealth of bloom at a season when most other hardy flowers are past, and for the best effect should be planted in masses of one color. The hardy sorts are entirely distinct from Annual Asters, being smaller in bloom but produced in greater quantity.

Beauty of Caanly. A grand semi-double flowering type of a beautiful lavender shade; height about four feet. September. Each, 25c; per dozen, $2.50.

Novi Belgii Climax. The plant is of strong vigorous habit, over 5 feet tall, with pyramidal shaped flower stems filled with light lavender-blue flowers, each 1 1/2 inches or more in diameter. August to October. Each, 25c; per dozen, $2.50.

Novi Belgii, St. Egwin. Handsome flowers of cherry pink. September and October. Each, 25c; per dozen, $2.50.

Novae-Angliae. A tall growing species, bearing clear purple flowers. September. Each, 20c; per dozen, $2.00.

Novae-Angliae Roseus. Similar to the preceding, bearing rose-colored flowers. September. Each, 20c; per dozen, $2.00.

Novae-Angliae. Mrs. F. W. Faynor. Large, deep crimson. September. Each, 20c; per dozen, $2.00.

Patrinicolas. White flowers, produced in great masses, fine for cutting. July and August. Each, 25c; per dozen, $2.50.

Snowflake. Grows to nearly two feet. Flowers pure white. September. Each, 20c; per dozen, $2.00.

Trinervis. Plant grows three and one-half feet high and produces deep violet mauve flowers from September to November. Each, 25c; per dozen, $2.50.

BAPTISIA (False Indigo)

Australis. Grows about 2 feet high with dark green, deeply-cut foliage and spikes of dark blue flowers in June. Each, 20c; per dozen, $2.00.

We do not guarantee or replace plants, shrubs or trees at prices quoted.
HARDY HERBACEOUS PLANTS—Continued

BOCCONIA (Plume Poppy)
Cordata. A splendid plant, growing sometimes six feet high, bearing panicles of creamy-white flowers in July and August; makes a grand effect as a center in a hardy bed or a border background.
Each, 20c; per dozen, $2.00.

BOLTONIA (False Chamomile)
Tall growing, showy plants, with flowers resembling hardy Asters; appearing in September.
Asteroides. Pure white; five to six feet. Each, 20c; per dozen, $2.00.
Latiquamia. Pink, tinted lavender, six feet. Each, 20c; per dozen, $2.00.

CAMANULAS (Bell Flower)
Bell-shaped flowers, well known and easily grown, of much variety of form, some being tall and suitable for planting in borders or among shrubbery, while others are dwarf and suitable for edging, rockwork, etc.
Carpatitea. (Caprathan Hare Bell.) Ideal for border or rockery planting, being of about eight inches high; flowers from June till frost. Blue and white, each separate. Each, 20c; per dozen, $2.00.
Glomerata Dahurica. Large heads of purple flowers, fine for the border. 2 feet. Each, 20c; per dozen, $2.00.
Persicifolia. (Peach Bells.) Blue flowers during June and July; 2 feet. Each, 25c; per dozen, $2.50.
Rotundifolia. (Scotch Hare Bells.) Very graceful drooping blue bells, rising from compact tuft of foliage; fine for rockery. June to August.
Each, 20c; per dozen, $2.00.

CERASTIUM (Snow in Summer)
Tomentosum. Suitable for the rockery or for covering dry, sunny spots. Low growing plant with silvery foliage and white flowers in June.
Each, 20c; per dozen, $2.00.

CHELONE (Shell Flower)
Stately plants growing about two feet high and bearing numerous spikes of large flower-heads during the Summer and Fall.
Lyoni. Showy, purplish-red flowers. Each, 25c; per dozen, $2.50.

COREOPSIS
Lanceolata Grandiflora. A beautiful hardy border plant; grows eighteen inches high, and produces its bright golden yellow flowers in great profusion the entire season. Each, 20c; per dozen, $2.00.
Rosea. Small pink flowers, blooming in August and September. Foliage—dark green, finely divided. Useful in border and rockery; 1 foot. Each, 25c; per dozen, $2.50.

DELPHINIUMS (Perennial Larkspur)
These are deservedly one of the most popular subjects in the hardy border, bold, attractive, and highly possessing plants of easiest culture; perfectly hardy. They will establish themselves in almost any garden soil, but respond quickly to liberal treatment. Will begin blooming about the middle of June. If stalks are cut off as soon as flowers fade, they will continue blooming all Summer. (See cut.)
Belladonna Hybrids. The freest and most continuous blooming of all. The clear turquoise-blue flowers are not surpassed by any 3 feet. Each, 20c; per dozen, $2.00.

Belladonna Semi-plena. Clear blue flowers, overlaid with pink. 3 feet. Each, 25c; per dozen, $2.50.

Formosum. Dark blue, white center, spikes three to four feet tall, vigorous; free blooming. 3 feet. Each, 20c; per dozen, $2.00.

Giant Hybrids. Unquestionably the finest strain of mixed hybrids ever offered. The original stock came from Europe, and consists of the best-named varieties. The plants are of strong, vigorous habit, with large flowers on spikes two feet and over long, the majority running in the lighter shades of blue.
Each, 20c; per dozen, $2.00.

Chinensis. A pretty dwarf species, with fine feathery foliage and intense gentian-blue flowers in open panicles. Each, 25c; per dozen, $2.50.

Chinensis Alba. A pure white form of the above. Each, 25c; per dozen, $2.50.

EUPATORIUM
Ageratoides. (Thorough Wort.) A border plant of strong free growth, 3 to 3½ feet high, with small white flowers in dense heads; splendid for cutting. August and September. Each, 25c; per dozen, $2.50.

Coelestimum. Light blue flowers, similar to the Ageratum, blooms from August until frost.
Each, 25c; per dozen, $2.50.

EUPHORBIA (Milk Wort)
Corollata. (Flowering Spurge.) Grows about 18 inches high, bearing from June to August umbels of pure white flowers with a small green eye; desirable for cutting.
Each, 25c; per dozen, $2.50.

Cyparissias. Grows 10 to 12 inches high with Cypress-like foliage and bears showy trusses of bright yellow flower-like bracts during May; very effective even when out of bloom.
Each, 25c; per dozen, $2.50.

FUNKIA (Plantain Lily)
The Plantain Lilies are among the easiest plants to manage; their broad, massive foliage makes them attractive subjects for the border, even when not in flower. They succeed equally well in sun or shade.
Coerulea. (Blue Day Lily.) Blue flowers and broad green leaves. Each, 25c; per dozen, $2.00.
Glaucha. Purplish-white flowers with immense foliage. Each, 20c; per dozen, $2.00.
Subcordata Grandiflora Alba. (White Day Lily, August Lily.) Pure white, lily-shaped, fragrant flowers. Each, 20c; per dozen, $2.00.
Thomas Hogg. Leaves are larger than Subcordata Alba and variegated around edges, with lavender flowers. Each, 20c; per dozen, $2.00.
Undulata Variegata. Foliage green, striped with white. Each, 20c; per dozen, $2.00.

We do not guarantee or replace plants, shrubs or trees at prices quoted.
CATALOGUE

HARDY HERBACEOUS PLANTS—Continued

GAILLARDIA (Blanket Flower)
Grandiflora. Beginning to flower in June, they continue one mass of bloom the entire Summer. Flowers three inches in diameter; center dark reddish brown; petals orange to crimson. (See cut.)
Each, 20c; per dozen, $2.00.

GYPSOPHILA (Baby’s Breath)
During August and September the plant is a mass of delicate feathery blooms. These may be used as fresh cut flowers, also for a semi-everlasting effect.
Paniculata. Loose, feathery sprays of white flowers, making a mist-like effect; fine for bouquets. Each, 20c; per dozen, $2.00.
Repens. An elegant trailing plant for the rockery, with clouds of small white flowers in July and August.
Each, 25c; per dozen, $2.50.

HELIANTHUS (Hardy Sunflower)
The perennial Sunflower is very effective either in borders, among shrubbery, or as clumps on the lawn, etc. (See cut.)

Maximiliana. Flowers in long, graceful sprays during October, when all others have finished flowering; live to seven feet.
Each, 20c; per dozen, $2.00.

Mollis. Large, single lemon-yellow flowers, with downy white foliage; blooms in August and September; four feet.
Each, 20c; per dozen, $2.00.

Spartifolius. A most gracefully formed variety of large size, of a deep yellow color, on long stems; splendid for cutting. August to September; six to eight feet.
Each, 20c; per dozen, $2.00.

HELENIUM (Sneezewort)
These are desirable border plants, succeeding in any soil in a sunny location; useful for cutting.

Autumnale Superbum. Flowers are deeper yellow, separate and distinct from Riverton Beauty.
Each, 20c; per dozen, $2.00.

Riverton Beauty. Lemon-yellow, with large purplish-black cone. Each, 20c; per dozen, $2.00.

Riverton Gem. Old gold changing to wall-flower red........ Each, 20c; per dozen, $2.00.

HELIOPSIS (Orange Sunflower)
Pitcheriana. Very similar to a small sunflower, but blooming earlier; deep golden yellow; all Summer. June till frost; three feet high.
Each, 20c; per dozen, $2.00.

Scabra Zinniaeifolia. A new double flowering form of the Orange Sunflower, somewhat resembling a Zinnia in shape. Fine for cutting, July and August; two feet. Each, 25c; per dozen, $2.50.

HEMEROCALLIS (Yellow Day Lily)
Lily-like plants, which flower in greatest perfection during the Summer.

Aurantica Major. Grows two to three feet high and produces deep orange-colored flowers during June and July. Each, 20c; per dozen, $2.00.

Flava. The best known variety, very fragrant, deep lemon-yellow flowers in June and July........ Each, 20c; per dozen, $2.00.

Luteola. Blooms during July and August; flowers a pleasing shade of lemon-yellow ........ Each, 20c; per dozen, $2.00.

Sovereign. Cup-shaped flowers; inside of petals light yellow, outside brown; blooms during July and August........ Each, 20c; per dozen, $2.00.

Thunbergii. Bears rich, buttercup-yellow, funnel-shaped flowers in July and August........ Each, 20c; per dozen, $2.00.

HEUCHERA (Alum Root)
FOLLIAGE remains close to the ground. During July and August, the graceful thin flower spikes, 2 feet high, appear in profusion.

Sanguinea. Bright scarlet........ Each, 20c; per dozen, $2.00.

HIBISCUS (Mallow)
These are a mass of bloom during the entire Summer, when they produce large flowers in gorgeous colors.

Mallow Marvels. Giant-flowering. Flowers of enormous size, frequently 10 to 12 inches in diameter. Plants grow from 5 to 8 feet high, and bloom from early in July until late in Autumn. We offer three distinct colors—red, pink and white—strong roots. One each of the 3 colors for $1.00.
Each, 35c; per dozen, $3.50.

Crimson Eye. Blooms of purest white with deep crimson eye; flowering in July; 4 feet........ Each, 20c; per dozen, $2.00.

We do not guarantee or replace plants, shrubs or trees at prices quoted.
JAPANESE IRIS (Iris Kaempferi)

THEY are most effective when planted in groups, and thrive best in a moist soil. The flowers are of immense size, from six to eight inches in diameter, and of the most beautiful and delicate shades. They are perfectly hardy, flowering in great profusion during June and July. (See cut.) We offer the following list of named sorts:

Azuma Yuki, No. 81. Petals rose-purple with heavy white veins, standards brownish-red, striped with white, yellow star center.

Banrai Nami, No. 1. Petals pale pinkish white with white standards and yellow center.

Furomon, No. 28. Petals bright pink, shading to creamy white, with heavy purple veins, standards purple, yellow center.

Kikino-Medmui, No. 97. Soft lilac, with dark purple veins and white standards.

Koshi-Ikari, No. 85. Petals brownish-red with light brown veins, center yellow, standards scarlet, striped with white.

Kyo-Dai-Yama, No. 59. Petals indigo, standards greenish blue, striped with white.

Okino-Kamone, No. 65. Petals recurved and creamy white, standards pure white.

Sasa No Koe, No. 34. Petals recurved and creamy white, veined pink and white, orange center, standards pure white, spotted deep pink.

Yeso-Nishiiki, No. 15. Petals lavender, heavily spotted with dark purple, center yellow, standards lavender, bordered with purple.

Yodo No Kuruma, No. 8. Petals bright pink, shading to dark pink at center and heavily veined, standards purple, marbled with white.

No. 66. Purple flowers with white spots; earliest to bloom. Above named varieties, each, 30c; per dozen, $3.00.

Finest Mixed (Our selection). Each, 20c; per dozen, $2.00.

By mail, each, 25c; per dozen, $2.50.

We can furnish large clumps of most of the above varieties from $1.00 to $1.50 each.

LIAOYIANS (Blazing Star, or Gay Feather)

MOST showy and attractive native plants, succeeding anywhere and producing their large spikes of flowers from July to September.

Pycnostachya. Spikes of light, rose-purple flowers; five feet. Each, 20c; per dozen, $2.00.

Spicata. Deep purple flowers, in spikes two to three feet high. Each, 20c; per dozen, $2.00.

IRIS PALLIDA DALMATICA

This variety is of strong, vigorous habit, growing in good soil 4 feet high, with exceptionally large, fragrant flowers, standards lavender, falls lavender, shaded blue; exquisite in every way and fine for massing.

Each, 25c; per dozen, $2.50.

IRIS SIBERICA

Orientalis. (Yale Blue.) A slender, graceful, tall-growing iris, with flowers quite similar to those of the Liberty iris, but smaller and much more numerous. The plants form large, strong, compact clumps, and bloom so freely that the deep blue flowers give almost a solid color effect. Each, 20c; per dozen, $2.00.

We do not guarantee or replace plants, shrubs or trees at prices quoted.
LINUM (Flax)

Perenne. A fine plant for the border or rockery; grows 2 feet high, with light, graceful foliage and large blue flowers all summer. Each, 25c; per dozen $2.50.

LUPINUS POLYPHYLLUS (Lupine)

EffecTive plants, producing large spikes of flowers. Will thrive in any good garden soil; grow about three feet high and bloom latter part of May and early June. Polypphyllus. Clear blue. Each, 20c; per dozen $2.00. Album. A white variety of above. Each, 25c; dozen $2.50. Moerheimi. Its clean, bold growth always attracts attention. The spikes of flowers are frequently over a foot long, in color superb, being a combination of light and dark shades of pink, without a trace of magenta. Each, 25c; per dozen $2.50.

LYCHNIS

Arkwrightii. Produces large circular flowers varying in color through crimson, scarlet, orange, salmon and intermediate shades; blooms all Summer and grows about 2½ feet high. Each, 25c; per dozen $2.00. Chalcedonica. A desirable plant, grows two to three feet high; flowers brilliant orange scarlet. Each, 20c; per dozen $2.00. Viscaria Splendens. (Catch Fly.) Is a brilliant border plant, the flowers being produced in dense spikes. Each, 20c; per dozen $2.00.

LYTHRUM

Roseum Superbum. (Rose Loose Strife.) A strong growing plant, three to four feet high, producing large spikes of rose colored flowers from July to September. Each, 20c; per dozen $2.00.

MERTENSIA (Blue Bells)

Virginica. An early spring-flowering plant, growing about one to one and one-half feet high, with drooping panicles of handsome, light blue flowers, fading to claret pink; one of the most interesting spring flowers, blooming in May and June. Each, 20c; per dozen $2.00.

MONARDA (Bergamot)

Showy plants, growing from two to three feet high, succeeding in any soil or position, with aromatic foliage, producing their bright flowers during July and August. Didyma. (Oswego Tea.) Flowers bright scarlet. Each, 20c; per dozen $2.00.

MYOSOTIS (Forget-Me-Not)

Palustris Semperflorens. A variety that is hardly ever out of flower. Useful in a shady spot in the border. Each, 20c; per dozen $2.00. Alpestris Robusta Grandiflora. The large spring-flowering Forget-Me-Not, with dense sky-blue flowers. Each, 20c; per dozen $2.50.

OENOTHERA (Evening Primrose)

Elegant subjects for growing in an exposed, sunny position, either in the border, or on the rockery, blooming all Summer. Pilgrimi. Large clusters of bright yellow flowers. Each, 20c; per dozen $2.00.

PENTSTEMON (Beard Tongue)

Barbatus Torreyi. Spikes of brilliant scarlet flowers from June to August. Grows 3 to 4 feet high. Each, 25c; per dozen $2.50.

PLATYCodon (Balloo Flower or Japanese Bell Flower)

The Platycodons are closely allied to the Campanulas, and form neat, branched bushes of upright habit. Gray Clouds. Deep blue, star-shaped flowers, one and a half feet. Each, 20c; per dozen $2.00. Album. A white-flowered form of the above. Each, 20c; per dozen $2.00. Mariesii. Deep blue, bell-shaped flowers, nearly three inches across on one-foot-high plants. Each, 20c; per dozen $2.00.

POLEMONIUM (Jacob's Ladder)

Reptans. Useful border plants, grows about 12 inches high, succeeds best in a partially shaded position; deep green, finely-cut foliage and spikes of showy blue flowers in May and June. Each, 25c; per dozen $2.50.

PHLOX DIVARICATA CANADENSIS

This variety is worthy of extensive planting, as it commences to bloom early in April and continues through May, with large, fragrant lavender flowers, on stems 10 inches high. Each, 20c; per dozen $2.00.

PHLOX (Phlox Decussata)

Probably the most satisfactory of all perennials, and a good space, in proportion to the size of the garden, should always be given to these plants. These are justly esteemed as the finest herbaceous plants. They are of dwarf habit, perfectly hardy, of very early culture, and yield a profusion of bright showy bloom. They are hardly equaled by any other hardy plant for the decoration of the garden. (See cut.)


Price—Any of the above, each, 20c; per dozen $2.50. If wanted by mail, add 5c each; 50c per dozen for postage.
PHLOX SUBULATA (Moss, or Mountain Pink)

An early spring-flowering type, with pretty moss-like evergreen foliage. After the flowering season, is hidden under the masses of bloom. An excellent plant for the rockery, the border, and invaluable for carpeting the ground, or covering graves.


PHYSOSTEGIA (False Dragon-Head)

One of the most beautiful of our mid-summer flowering Perennials, forming dense bushes three to four feet high. Bears spikes of tubular flowers not unlike a gigantic heather.

Virginica. Bright, soft pink. Each, 20c; per dozen, $2.00. Virginica Alba. Pure white. Each, 20c; per dozen, $2.00.

ORIENTAL POPPIES

(Papaver Orientale)

These are the regal representatives of this popular genus, far surpassing in splendor of bloom all the annual and biennial kinds, and for a gorgeous display of rich and brilliant color, nothing can equal them during their period of flowering in May and June, and whether planted singly or in masses, their large flowers and freedom of bloom make them conspicuous in any position. After flowering, the plants die back, usually re-appearing along in early September, or as soon as the weather gets cool. During this resting period, care should be taken in cultivating the beds, that the roots are not disturbed, any disturbance this time usually resulting in failure. We offer the following distinct varieties:

Diana. Beautiful salmon flowers.

Goliath. Flowers scarlet, of enormous size.

Mahogany. Dark red, shading to crimson maroon.

Princess Victoria Louise. Soft lilac rose.

Procris. Dark blue, with white blotch.

Royal Scarlet. Scarlet flowers, with black center.

Salmon Queen. Soft, salmon-scarlet; very distinct.

Wild Bergenia. White, very free flowering.

The above varieties... Each, 25c; per dozen, $2.50.

Mixed Varieties... Each, 20c; per dozen, $2.00.

HARDY GARDEN PINKS

These old-fashioned favorites are absolutely perfect as an edging for the hardy border; as cut flowers they are indispensable.

Her Majesty. Each, 20c; per dozen, $2.00.

White Reserve. A pure white variety, very white and spicy fragrance. Ever-blooming.

Mixed Hardy Garden Pinks. Seedlings grown from a very select strain, which should produce a good percentage of double flowers. Each, 20c; per dozen, $2.00.

PYRETHRUM

The large daisy-like blooms appear as early as June and continue in abundance continuously until September. They delight in a rich soil with a natural drainage. They thrive best in the full sunlight. As the flowers die, the old stems should be cut off to encourage new blooms.

Hydrastis P. F. Double flowering, mixed. Each, 20c; per dozen, $2.00.

Hydrastis, Single Flowering. In choice mixtures. Each, 20c; per dozen, $2.00.

Uliginosum. (Giant Daisy.) Grows four to five feet high, and is covered with large white daisy-like flowers three inches in diameter from July to September. Each, 20c; per dozen, $2.00.

PEONIA OFFICINALIS

This type is the real old-fashioned "Peony," and comes into bloom from ten days to two weeks ahead of the American sorts. All strong growers, with large, full, double, fragrant flowers.

Alba, blush-white; Rosa, rose; Rubra, crimson. Each, 25c; per dozen, $2.50.

Peonies—Japanese Single

The single Peonies are even more beautiful than the doubles. The flowers are in clusters of four to five blooms, the middle of which is more delicate in coloring. No other plant flowering at the same season can vie with the Single Peony.

Mixed Colors... Each, 30c; per dozen, $3.00.
CATALOGUE

HARDY HERBACEOUS PLANTS

(Continued)

RUDBECKIA (Cone Flower)

A VARIETY of these will furnish a supply of cut flowers from early July until September. They are extremely hardy, doing well with every one. They could be termed "a garden perennial," doing so well with little attention. Golden Glow. Double canary yellow flowers, six feet. August. Each, 20c; per dozen, $2.00.

Newmanii. Single dark orange, with deep purple center; three feet high; flowers from July to September. Each, 30c; per dozen, $2.00.

Purpurea. (Giant Purple Cone Flower). The flowers remain in perfect condition on the plants for weeks at a time. In fact, we do not know of any other perennial whose flowers last so long in perfect condition. Flowers from July to September; two and a half feet high. Each, 30c; per dozen, $2.00.

SCABIOSA

Caucasia. (Blue Bonnet.) Blooms from June to September. Flowers a soft shade of lavender borne on stems 18 to 24 inches high. August. Each, 25c; per dozen, $2.50.

Japonica. They last a long time when picked and placed in water. Bears lavender-blue flowers on long stems from July to September. Each, 25c; per dozen, $2.50.

SEDUM (Stone Crop)

Acre. (Golden Moss.) Much used for covering gravel; foliage green, flowers bright yellow. Each, 20c; per dozen, $2.00.

Album. Green foliage, white flowers. Each, 20c; per dozen, $2.00.

Sexangulare. Dark green foliage, yellow flowers. Each, 20c; per dozen, $2.00.

Spectabilis. Erect growing; height 18 inches with broad light-green foliage and immense heads of handsome, showy, rose colored flowers. Each, 20c; per dozen, $2.00.

Spectabilis Brilliant. Similar in growth to the above, with immense heads of rose-colored flowers. Each, 20c; per dozen, $2.00.

Spirium. Grows 6 inches high with attractive pink flowers. Each, 20c; per dozen, $2.00.

SHASTA DAISY

LARGE, snowy-white flowers, in bloom continuously throughout the Summer and Fall. Alaska. A decided improvement on the original, very free-flowering, with blooms 4½ to 5 inches across, of pure white. August. Each, 20c; per dozen, $2.00.

King Edward. Very large flowers; plant of vigorous growth. Each, 25c; per dozen, $2.50.

SPIREA (Goat's Beard, Meadow Sweet)

Filipendula, f. pl. (Double Flowered Drop-wort.) Pretty fern-like foliage, with double white flowers on stems 15 inches high during June and July. Each, 25c; per dozen, $2.50.

Palmata Elegans. Pure white flowers; produces showy pink anthers during June and July; 3 feet. Each, 25c; per dozen, $2.50.

STATICE (Great Sea Lavender)

Ligustica. Immense heads, 2 to 3 feet across, small, blue flowers from June to September, which last for months if cut and dried. Each, 20c; per dozen, $2.00.

Cypera. Produces showy, aster-like, deep blue flowers which measure from 4 to 5 inches across, 18 to 24 inches high, blooming freely from July until frost. Each, 25c; per dozen, $2.50.

Alba. White flowers and green foliage. Each, 20c; per dozen, $2.00.

STOKESIA (Cornflower Aster)

Erianstrea. Produces showy, aster-like, deep blue flowers which measure from 4 to 5 inches across, 18 to 24 inches high, blooming freely from July until frost. Each, 20c; per dozen, $2.00.

Newport Pink. Salmon or watermelon-pink flowers. Each, 20c; per dozen, $2.00.

VALERIANA

Coccinea. Showy heads of reddish flowers, blooming from June to October. Height, 2 feet. Each, 20c; per dozen, $2.00.

Officinalis. (Hardy Garden Heliotrope). Showy heads of rose-tinted white flowers during June and July, with strong heliotrope odor; 3 to 4 feet. Each, 20c; per dozen, $2.00.

VINCA MINOR

(Periwinkle or Trailing Myrtle)

Dwarf evergreen trailing plant, is useful for carpeting the ground where it is too shady for other plants to thrive. Each, 20c; per dozen, $2.00.

VERONICA (Speedwell)

Amethystina. Grows 2 feet tall; bears amethyst-blue flowers in June and July. Each, 20c; per dozen, $2.00.

Incana. Bright silvery foliage, with spikes of amethyst-blue flowers 1 foot high during July and August. Each, 20c; per dozen, $2.00.

Longifolia Subsessilis. A pretty species with blue flowers, produced on spikes a foot long, continuing in bloom the entire Summer and Fall. Each, 20c; per dozen, $2.00.

Sperata. An elegant border plant, growing about ½ foot high, producing long spikes of bright blue flowers. Each, 20c; per dozen, $2.00.

Virgata. Long spikes of white flowers in July and August; 3 to 4 feet. Each, 20c; per dozen, $2.00.

VIOLAS, OR TUFTED PANIES

(Viola Cornuta)

They flower continuously for nearly eight months in the year and while their flowers are not so large as those of the Pansy, their bright colors make them welcome additions to any garden.

Admiration. Soft purple, with dark blotch.


Papilio. Violet, with dark eye; the most effective for massing.

White Perfection. A fine white.

Each of the above, 15c. Each, $1.50.

YUCCA FILAMENTOSA

(Adam's Needle)

A hardy ornamental foliage and evergreen plant with long, narrow leaves that are bright green the whole year round. The flowers are white, produced on long spikes. Each, 20c; per dozen, $2.00.

ORNAMENTAL GRASSES

Bulalaria Gracillima. (Japan Rush.) The most beautiful of all the Bularias, with narrow, graceful foliage, entirely green without variegation, except that the mid-rib is of a silver sheen.

Bulalaria Japonica Variegata. Leaves striped white and green longitudinally.

Bulalaria Zebrina. (Zebra Grass.) A peculiar variegated grass, growing six feet high. The variegation is unlike that of any other plant, being across the leaf in regular bands, dark green and light.

Above, each, 25c; per dozen, $2.50 extra by mail, 10c each.

We do not guarantee or replace plants, shrubs or trees at prices quoted.
SHRUBS are as much a part of the garden as the lawn or flower borders, and a well arranged planting presents an attractive appearance throughout the entire year. Thoughtful provision of the garden by spacing, and the addition of a liberal quantity of sheep or stable manure or bone meal will be well repaid by strong, vigorous, healthy growth. In planting, care should be taken not to overcrowd, allowing sufficient room for future development, and unless an immediate effect is wanted—in which case they may be planted closer and spaced only by memory. The majority of the dwarf-growing kinds may be set about three feet apart, the tall, strong growers about five feet apart.

Our Shrubs are transplanted every two or three years and are furnished with plenty of fibrous roots and should not be compared to young cuttings from nursery stock sold unfinished.

We can furnish Extra Strong Specimen Plants of most all sorts at $1.00 to $5.00 each.

**FORSYTHIA SUSPensa.** (Weeping Golden Bell) Wilowy growth and yellow flowers. Three to four feet. Each, 50c; per dozen, $5.00.

**FORSYTHIA VIRIDISSIMA.** (Golden Bell) Erect growth and spreading branches; flowers bright yellow. Three to four feet. Each, 50c; per dozen, $5.00.

**HYDRANGEA PANICULATA GRANDIFLORA.** White flowers, which are borne in dense pyramidal panicles in the greatest profusion, are white when they first open, but gradually change to rose and remain in good condition for weeks.

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**HYDRANGEA PANICULATA GRANDIFLORA.**

**Standard or Tree-Shaped Plants.** Three to four feet. Each, 50c; per dozen, $7.50.

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<tr>
<th>Feet</th>
<th>Each</th>
<th>Per Dozen</th>
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<tbody>
<tr>
<td></td>
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</tr>
<tr>
<td>Four</td>
<td>50c</td>
<td>$10.00</td>
</tr>
</tbody>
</table>

**LILAC.** Purples. (Syringa Vulgaris.) Purple flowers.

<table>
<thead>
<tr>
<th>Feet</th>
<th>Each</th>
<th>Per Dozen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two</td>
<td>30c</td>
<td>$3.00</td>
</tr>
<tr>
<td>Three</td>
<td>50c</td>
<td>$5.00</td>
</tr>
</tbody>
</table>

**LILAC.** White. (Syringa Pure Alba.) White flowers.

<table>
<thead>
<tr>
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<th>Each</th>
<th>Per Dozen</th>
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<tbody>
<tr>
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</tr>
<tr>
<td>Three</td>
<td>50c</td>
<td>$5.00</td>
</tr>
</tbody>
</table>

**Price of any combination.** 25c; each, 2 dollars, or more.

**PHILODEPHUS OR SYRINGA.** Grandiflorus. (Largeflowered mock Orange.) Flowers pure white and very large.

<table>
<thead>
<tr>
<th>Feet</th>
<th>Each</th>
<th>Per Dozen</th>
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<tbody>
<tr>
<td>Five</td>
<td>50c</td>
<td>$2.50</td>
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</table>

**PHILODEPHUS OR SYRINGA.** Kerrioides.

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<tbody>
<tr>
<td>Three</td>
<td>50c</td>
<td>$3.00</td>
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**PHILODEPHUS OR SYRINGA.** Floribundus.

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<tbody>
<tr>
<td>Three</td>
<td>30c</td>
<td>$2.25</td>
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**PHILODEPHUS OR SYRINGA.** Rambutte.

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<tbody>
<tr>
<td>Three</td>
<td>50c</td>
<td>$3.00</td>
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**PHILODEPHUS OR SYRINGA.** Spectabilis.

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</thead>
<tbody>
<tr>
<td>Five</td>
<td>50c</td>
<td>$3.00</td>
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</tbody>
</table>

We do not guarantee or replace plants, shrubs or trees at prices quoted.

---

**ORNAMENTAL TREES**

**CATALPA BUNGI**. (Umbrella Catalpa.) Six to seven feet. Each $1.50. Specimen trees, each $2.50. Leaves large, heart-shaped, to 5 feet long. Leaves deep red blood.

<table>
<thead>
<tr>
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<th>Per Dozen</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Two</td>
<td>50c</td>
<td>$2.50</td>
</tr>
</tbody>
</table>

**MULBERRY.** Beans, Weeping. The most graceful hardly weeping tree in existence. 2 to 30 feet tall. Each $2.50.
Hardy Hybrid Perpetual Roses

Among all the hardy plants few are so commonly well liked or more valuable than the roses, particularly the "June Roses," as the Hybrid Perpetuals are called. They are strong growers, bearing large globular flowers, and are so hardy that they succeed in any locality. The severest winters will not kill them, but it is generally conceded that protection is beneficial when the straw, manure, corn-stalks or other covering is not so thick as to be unnatural and smother them.

Hardy Hybrid Perpetual Roses should be planted in the Fall, because dormant stock for Spring delivery is unsatisfactory on account of being carried in storage cellars all winter. For this reason we have discontinued making Spring deliveries on Hardy Perpetual and Hardy Climbing Roses.

Strong Two-Year-Old Plants Ready for Delivery During October and November.

Price—Extra Strong Plants, each, 75c; per dozen, $7.50. Sent by express at customer's expense.

If wanted by mail, add 10c each, 75c per dozen, for postage.

Captain Christy. Delicate flesh pink, very free.

Eugene Furst. Flowers velvety crimson with maroon shading.

Frau Karl Druschki. An exquisite flower of the purest white.

General Jacqueminot. The old favorite; velvety crimson.

John Hopper. Brilliant crimson, large flowers, remarkable for their fragrance.

Mme. Plantier. Pure white, large and double, free bloomer, fine for cemetery planting.

Magna Charta. Deep pink, large sweet scented and of fine form; one of the hardest.


Mrs. John K. Ing. Large beautiful pink blooms, borne on long sturdy stems.

Paul Neyron. An immense rose of a deep rose color.

Prince C. De Roahan. (The Black Rose.) Deep velvety crimson passing to intense maroon.

Ulrich Brunner. Cherry crimson, large fine form, strong grower and hardy.

Hardy Climbing Roses

We offer the best and most distinct varieties.

Price—Strong 2-Year-Old Dormant Stock for Fall planting, each, 75c; per dozen, $7.50. By express at purchaser's expense.

American Pillar. Color is a delightful shade of pink.

Crimson Rambler. Bright crimson flowers.

Dorothy Perkins. Beautiful shell pink flowers.


Flower of Fairfield. Large trusses of crimson flowers.

Hiawatha. Brilliant, ruby-carmine flowers.


Lady Gay. A delicate cherry pink.

Silver Moon. Large pure white flowers.

Tausendschoen. Beautiful soft pink flowers.

Gardenia. (Wichurana) Flowers cream color.

Velichenblau. (Blue Rambler) Bluish flowers.

Hedge Plants

California Privet. (Ligustrum ovalifolium.) Its foliage is a rich dark-green, and is nearly evergreen, remaining on the plant until mid-winter. It is of free growth and succeeds under the most adverse conditions, such as under dense shade of trees. The most advantageous manner of planting, is in double rows, the two rows being about 8 inches apart. The plants should be set 12 to 15 inches apart in the row, alternating the plants. In order to secure a dense hedge from the base up, the plants should be severely pruned the first two seasons.

18 to 24 inches, 75c per dozen; $4.00 per 100.

24 to 36 inches, 1.00 per dozen; $6.00 per 100.

Extra Large Bushy Plants, $1.50 per dozen; $10.00 per 100.

Hardy Climbing Plants

Amelopsis Veitchii. (Japan Creeper or Boston Ivy.) Best climbing plant for covering brick or stone walls.

Each, 50c; per dozen, $5.00; by mail, each, 55c.

Amelopsis Quinquefolia. (Virginia Creeper.) For covering walls, verandas, and trunks of trees.

Each, 50c; per dozen, $5.00; by mail, each, 55c.

Bignonia Radicans. (Trumpet Vine.) Flowers trumpet-shaped, bright scarlet.

Each, 25c; per dozen, $2.50; by mail, each, 30c.

Clematis (Small Flowering)

Panicaulis. (Japanese Clematis.) Pure white, very fragrant, borne in large clusters; small flowering. Each, 50c; per dozen, $5.00; by mail, each, 55c.

Euonymus Radicans

This vine is especially adapted for covering low foundation walls. Has deep evergreen foliage and is extremely hardy. Can also be used as an edging plant as it may be clipped same as boxwood. Each, 50c; per dozen, $3.00.

Honeysuckles

Each, 35c; per dozen, $3.50; by mail, each, 40c.

Aurea Reticulata. Foliage variegated yellow and green, with yellowish white, fragrant flowers.

Monthly Fragrant or Dutch. Blooms all Summer.

Common Woodbine. A strong, rapid grower; flowers red outside, buff within.

Halleana. Nearly evergreen; flowers pure white.

Scarlet Trumpet. Scarlet inodorous flowers.

Ivy. English. Beautiful, evergreen vine. Each, 50c; per dozen, $5.00; by mail, each, 55c.

Matrimonial Vine. The branches may be trained over fences or trellises. Each, 35c; per dozen, $3.50; by mail, each, 40c.

Vitis Heterophylla Variegata. Dark green foliage, variegated with white and pink. Each, 30c to $1.00.

Wisteria, Chinese. Delicate, violet blue blossoms. Each, 60c; per dozen, $6.00; by mail, each, 65c.

Wisteria, Chinese, White. Pure white flowers. Each, 60c; per dozen, $6.00; by mail, each, 65c.

We do not guarantee or replace plants, shrubs or trees at prices quoted.

Page 33
SELECT thrifty young trees in preference to old or very large ones; the roots are more tender and fibrous and they bear transplanting better and are more apt to live; they can also be more easily trimmed and shaped to any desired form, and in the course of a few years will usually outstrip the older ones in growth. If not prepared to plant when your stock arrives, "heel in" by digging a trench deep enough to admit all the roots, and setting the trees therein, carefully pack the earth about the roots.

By Express or Freight at Expense of Purchaser. We do not guarantee or replace Trees or Shrubs at prices quoted.

While we make no charge for packing or delivery to freight or express offices here, still on account of increased cost of operation we cannot accept orders for Fruit Trees in smaller quantities than six, either straight or assorted, at prices quoted. In smaller quantities, add 5c per tree or make up a Club Order among your friends that can be shipped to one address.

APPLES, STANDARD
5 to 7 feet high. Each, $1.00; per dozen, $10.00.

SUMMER VARIETIES
Early Harvest. (New Jersey, Yellow Harvest). Fruit is medium size to large, the skin tender, very smooth, clear, pale, waxen yellow; flesh is white, rather fine, crisp, tender, juicy, at first slightly sub-acid, but eventually becoming milder and more agreeable for dessert. Ripens in July and August.

Red Astrachan. Fruit of good medium size; yellow, largely covered with red, presenting a striped appearance; flesh white, often strongly tinged with red, crisp, tender, juicy, sub-acid and of good quality. One of the most beautiful early market apples. Ripens in July and August.

Yellow Transparent. (White Transparent. Grand Sultan). The tree is an upright grower and usually bears fruit the next year after planting. Fruit of medium size, pale, waxen yellow, pleasantly acid, tender and good, splendid for home and market. Ripens in July and August, before Early Harvest.

APPLES, STANDARD
5 to 7 feet high. Each, $1.00; per dozen, $10.00.

AUTUMN VARIETIES
Delicious. This is probably the best of the newer varieties, having been satisfactorily tested in many parts of the country, and is a fruit of good size, pale, waxen yellow; flesh white, very crisp, with an aromatic aftertaste. Ripens in September.

Duchess of Gloucester. A variety of great hardness, yielding abundantly in all sections. Fruits are large, rounded, yellow, striped red, tender, juicy and of the best quality for cooking.

Fall Rambo. Fruit mottled and striped red and yellow, of medium size and good flavor; widely cultivated and highly esteemed for eating. Tree is a strong grower and heavy bearer.

Maiden's Blush. Fruit of uniformly good size, smooth, round, beautifully flushed with brilliant red on a yellow ground. Good for table use. One of the most beautiful and productive Fall varieties. Ripens in August and September.

APPLES, STANDARD
5 to 7 feet high. Each, $1.00; per dozen, $10.00.

WINTER VARIETIES
Baldwin. A great market apple, very productive; fruit large, deep red, crisp, juicy and rich. December to March.

Banana. The fruit is large, clear, pale yellow with pinkish-red blush; flesh firm, crisp, aromatic and mildly acidic with a suggestion of banana flavor. November to February.

SUITABLE DISTANCES FOR PLANTING FRUIT TREES.
Apples, standard, 30 to 40 feet. Pears, standard, 18 to 20 feet. Peaches, 16 to 18 feet. Cherries, sweet, 18 to 20 feet. Cherries, sour, 15 to 18 feet. Plums, 16 to 20 feet. Quinces, 10 to 12 feet.

We do not guarantee or replace plants, shrubs or trees at prices quoted.

WINTER VARIETIES—Continued

Ben Davis. (New York Pippin.) A remarkable keeper and profitable market apple in many sections. Large, handsome, brightly striped with red, variable in flavor. Remarkably vigorous and fruitful. January to April.

Gano. Similar but superior to the Ben Davis, bearing a handsome and better quality of fruit that is large and dark red. Flesh is pale yellow, sub-acid, of good flavor and good keeping qualities. Very productive. December to March.

Grimes Golden. Fruit medium to large of transparent golden yellow and of best quality. Flesh tender, juicy, spicy and rich. November to February.

Jonathan. Fruit is medium sized, pale yellow, heavily flushed with red; the flesh is white, juicy, tender and mild sub-acid. Excellent quality. November to March.

Northern Spy. Fruit large, striped crimson in the sun; juicy, rich and aromatic, retaining these qualities until late Spring or Summer. Valuable as an Aphis-resisting sort. January to June.

Rome Beauty. (Royal Red, Rome, Phoenix). The fruit is large and handsome, yellow, with crimson cheek, tender, juicy, with yellow flesh; uniform in size, fine in appearance and of good quality. November to February.

Stayman's Winesap. Fruit medium size, mostly covered with red on a yellow ground; flesh fine, crisp, juicy, very tender and highly flavored. November to April, but will keep until May. A favorite apple for cider.

Winesap. Fruit medium large, skin almost entirely covered with dark red; flesh yellow, crisp, with a rich flavor. December to March.

York Imperiel. (Johnson's Fine Winter, Shepp). Fruit medium size, attractive, smooth, clear, waxen-yellow, flushed with carmine. The flesh is crisp, firm, sub-acid and retains its flavor to the last. December to February.

CRAB APPLES
5 to 7 feet. Each, $1.00; per dozen, $10.00.

CRAB Apples do well on almost all soils. Trees are hardy and vigorous; come into bearing early and bear almost every year. Excellent for cider, vinegar and jelly.

Hyslop. Bears large crimson fruit in clusters. October.

Transcendent. Largest and best of the Siberian Crabs. Tree is extremely hardy, good grower and usually very productive. Fruit is bright yellow, striped with red and one and one-half to two inches in diameter. Flesh is crisp, juicy and sub-acid. August and September.

Whitney. Tree is a hardy, thisty, upright grower; comes into bearing young and is very productive. Fruit is green, spotted with carmine. Flesh yellowish, crisp, juicy, splendid for eating and cider. August and September.

Yellow Siberian. Color of fruit is amber with red blush and of medium size. September.
FRUIT TREES, Continued

CHERRIES

HEART AND BIGARREAU (Sweet)

5 to 7 feet, first-class, each $1.20; per doz., $12.00

No home orchard is complete without some cherry trees. They are easily grown wherever the apple succeeds and they bear good crops yearly.

Black Tartarian. A beautiful purplish cherry of large size and superb quality, rich and juicy. Late June and July.

Governor Wood. One of the finest sweet cherries. Fruit is large, light red, juicy and delicious. Tree is healthy and productive. June.

Napoleon. Fruit of large size, white with red cheeks, firm and juicy. One of the best. Early July.

Rockport Bigarreau. Fruit large, round, light red, flesh firm and of fine flavor. Late June.

Yellow Spanish. A large handsome sweet cherry; yellow with light red cheek, firm and delicious. Late June.

DUKE AND MORELLO (Sour)

4 to 6 feet, first-class, each $1.20; per doz., $12.00.

Dyhouse One of the earliest cherries. Similar to the Early Richmond but ripens about a week earlier and is much sweeter. The fruit is medium sized, soft, red and juicy. Tree is hardy and very productive. June.

Early Richmond or May. Unsurpassed for cooking. The tree is a free grower and reliable producer. The fruit is medium size, dark red, juicy and has an acid flavor. June.

English Morello. Fruit is large, dark red, nearly black, rich, juicy, with acid flavor. Tree is of dwarf growth. Late July.

Windsor. A large, delicious cherry; reddish-brown or lighter colored. Valuable for late market or home use. July.

MULBERRIES

5 to 6 feet, each $1.25; per doz., $12.50.

Downing's Everbearing. One of the most prolific varieties, bearing an abundance of large, black, sub-acid fruits; hardy.

PEARS

STANDARD AND DWARF

6 to 7 feet, first-class, each $1.00; per doz., $10.00.

Bartlett. One of the most popular sorts, both for home and market. It is large, handsome, waxy yellow with red blush, flesh buttery, rich, juicy and highly flavored. August and September.

Duchess D'Angouleme. The skin is a dull greenish-yellow; flesh white, melting, juicy and well flavored. Tree is a vigorous grower. October and November.

Emlish Beauty. The fruit is large, the skin pale yellow; the flavor is sweet and melting. September and October.

Kieffer's Hybrid. Large, rich color and good quality. Fine for canning and preserving. October and November.

Seckel. Small, yellowish brown, of rich, delicious flavor, very popular for dessert. August and September.

Sheldon. Of the finest quality, rich and aromatic. Fruit is greenish russet with a red cheek, large size and somewhat flattened shape. September.

PEACHES

4 to 6 feet, each 90c; per doz., $9.00.

Living on a farm, plant a small peach orchard for home use or a larger one for commercial purposes. If living on a city lot plant a peach tree in the back yard.

Champion. One of the finest freestone peaches. Large, creamy-white with slight blush. Flesh white, rich, sweet, juicy and of excellent flavor. August.

Crawford's Early. A very large, rich, yellow freestone of the finest quality. Late August.

Crawford's Late. This peach is similar to Crawford's Early, but ripens two or three weeks later. Freestone. Late September.

Elberta. The fruit is large with golden-yellow skin covered largely with crimson; flesh is yellow, firm, juicy and of high quality, very prolific. Freestone. September.

Heath Cling. Fruit very large, creamy white with faint blush. Flesh white to the stone, juicy and sweet with a good aroma. October.

Old Mixon Free. The standard late white peach. A large tender freestone with tender, excellent white flesh. September.

PLUMS

STANDARD ON PLUM STOCKS

5 to 7 feet, each $1.20; per doz., $12.00.

Plum trees require but little room to grow and are prolific bearers. For dessert, cooking and canning the demand is almost unlimited.

Abundance. A large, beautiful yellow, heavily overgrown with purple-carmine. Flesh yellow, juicy, sweet, firm, with tough skin. July.

Bradshaw. Very large, dark violet red; flesh yellow, juicy and good. Tree an erect, vigorous grower. Middle of August.

Burbank. Fruit very large, color cherry red, mottled; flesh yellow, sweet and firm. Hardy and vigorous grower. August.

Lombard. A favorite for canning. Fruit is medium size, oval and violet red. Flesh is yellow, juicy, pleasant and good. Late August.

Red June. An early ripening plum of good quality. Fruit medium to large, purple-red; flesh yellow, solid, juicy and of good quality. Early August.

Shippers Pride. Large, showy, dark purple fruit. The flesh is sweet and firm. September.

Yellow Egg. A beautiful yellow, egg-shaped plum of large size; flesh yellow. Excellent for canning. Late August.

QUINCES

4 to 5 feet, each 90c; per doz., $9.00.

Apple or Orange. Large, round, bright golden yellow, cooks quite tender and has an excellent flavor. Valuable for preserving and for market. An abundant bearer.

Champion. The fruit is large, oval, of a rich color and excellent quality. Ripe late and keeps well until January. We do not guarantee or replace Trees or Shrubs at prices quoted.
BLACKBERRIES, CURRANTS, GOOSEBERRIES AND RASPBERRIES

By Express or Freight at Expense of Purchaser.

Impossible to Accept Orders for Small Fruits Totaling Less than One Dollar.

BLACKBERRIES

Per dozen, 75c; per 100, $5.00.

The Blackberry is one of the most profitable fruits to grow when properly managed as it thrives well in almost any soil, but reaches perfection in a strong loam tending towards clay.

Ancient Briton. Large berries of fine quality.

Blower. Large berries. Very productive.

Early Harvest. Fruit, medium size. The first to ripen.

Eldorado. Large fruit, fine quality, good keeper.

Mersea. Berries large; good keeper and shipper.

Rathbun. Fruit, very large, sweet and luscious.

Snyder. Medium size; sweet and juicy.

Taylor. Medium size fruit of fine flavor; ripens late.

Ward. Fine, large fruit of excellent quality, hardy.

CURRANTS

Two-Year-Old Plants

A cool, moist soil is best adapted to the growth of currants. They should be well cultivated and heavily mulched.

Cherry. Large, bright red berries with a thin skin and fine flavor.

Champion. This is one of the best black currants; fruit is above medium size with fine flavor.

Perfection. Color of fruit is a beautiful bright red, of large size and a rich, mild, sub-acid flavor.

White Grape. The golden-white berries are borne in large, handsome clusters and have a mild, sub-acid flavor.

DEWBERRY

Lucretia. One of the low-growing, trailing blackberries. It has proved highly satisfactory wherever tried, and many say it is the best of all the blackberry family.

Per dozen, 75c; per 100, $5.00.

GOOSEBERRIES

Two-Year-Old Plants

One of the hardiest of the bush fruits. The best results are obtained by planting in moist clay loam.

Downing. Large, pale green and of splendid quality for both cooking and table use.

Each, 35c; per dozen, $3.50.

Houghton's. Small to medium; roundish oval, pale red, sweet, tender.

Each, 35c; per dozen, $3.50.

Industry. The best English variety yet introduced. Berries large, dark red color when ripe.

Each, 40c; per dozen, $1.00.

Smith's Improved. Large, pale greenish yellow, skin thin, of excellent quality.

Each, 35c; per dozen, $3.50.

RASPBERRIES

Once the raspberry patch is established it requires very little cultivation. They thrive in good, moist soil. Black caps should be planted in the spring.

St. Regis. It is wonderfully prolific, the first or main crop being far greater than that of any other red variety known. It fruits on the old canes in generous quantities until late in August. By that date, berries begin to ripen upon the young canes, which continue to produce berries in increasing numbers until severe frost. The berries are a bright crimson, of large size and surpassing quality—rich, sugary with full raspberry flavor. They are of exceedingly meaty, firm texture and keep in good condition longer after being gathered than any other red raspberry... Per dozen, $1.00; Per 100, $7.00

The following varieties are all, per doz., 75c; per 100, $5.00.

Cardinal. Considered one of the very best purple berries, as they produce a fine quality of dark red or almost purple berries through a long season.

Cumberland. The largest black cap.

Cuthbert. Large, firm, deep rich crimson.

Gregg. A large black cap variety, fruit firm.

Kansas. The hardiest black cap; strong vigorous.
STRAWBERRIES

Dip the plants in water as soon as received, and bury the roots in moist, shady ground till you are ready to set them out.

**Superb.** The Ever-bearing Strawberry— **Superb** is a truly wonderful, full-bearing variety, and what makes it unusually profitable is the fact that it also produces a heavy yield of choice fruit in the early summer, along with the standard varieties. They continue to give large yields of choice berries throughout August, September and in October up to the time the ground is slightly frozen. Plants of this variety which are set in the Spring should have the blossoms removed until the first of July. The remainder of the blossoms may be left to develop into berries, and a good crop of fruit will thus be secured the same season the plants are set, without injury to the plants.

The following varieties are all, per dozen, 60c; per 100, $1.50.

**Aroma.** One of the finest for long-distance shipping. The large berries are bright red to the center, of conical shape with prominent and attractive yellow seeds.

**Gandy.** One of the best late varieties. Berries large, of fine form and excellent quality.

**Glen Mary.** Large to very large, sometimes flattened; sweet and rich.

**Superb**


Senator Dunlap. Exceedingly vigorous. Fruit large, regular and attractive in form; deep red to the center. Firm in substance.

**Wm. Burt.** Berries very large, conical, bright red; of good flavor. The plant is strong, healthy, very fruitful.

GRAPE VINES.

**ALL TWO-YEAR OLD SELECTED STOCK**

This is one of the most satisfactory crops that can be grown, because it can be depended upon practically every year. Grape vines will grow almost anywhere, but they should be carefully cultivated and pruned.

**BLACK OR PURPLE GRAPE VINES.**

*Concord.* Large, black grape, hardy and productive; juicy and sweet.

Each, 40c; per dozen, $4.00.

**'Ives' Seedling.** Dark purple, sweet. Each, 35c; per dozen, $3.50.

**Moore's Early.** Ripens ten days earlier than Concord; bunch and berry round and large. Each, 45c; per dozen, $4.50.

**WHITE OR YELLOW GRAPE VINES.**

**Niagara.** Bunch and berries large, light greenish white. Each, 45c; per dozen, $4.50.

**Pocklington.** Bunch and berry very large; attractive, golden yellow color. Each, 45c; per dozen, $3.50.

Varieties marked with a * ( ) are best for arbors.

**SUITABLE DISTANCES FOR PLANTING SMALL FRUITS AND GRAPE VINES.**

**Blackberries,** 5 to 7 feet. **Currants,** 3 to 4 feet. **Gooseberries,** 3 to 4 feet. **Raspberries,** black, 4 to 5 feet. **Strawberries,** 1 x 3 1/2 feet. **Strawberries in beds,** 1 1/2 x 1 1/2 feet.

Shade and Ornamental Trees

We enumerate below the principal varieties of Shade and Ornamental Trees, etc., all STRICTLY SELECTED STOCKS.

<table>
<thead>
<tr>
<th></th>
<th>Each</th>
<th>Per Doz.</th>
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<tbody>
<tr>
<td><strong>ASH, American White.</strong></td>
<td>6 to 8 feet</td>
<td>$1.50</td>
</tr>
<tr>
<td>European</td>
<td>6 to 8 feet</td>
<td>1.50</td>
</tr>
<tr>
<td><strong>BIRCH, European White.</strong></td>
<td>8 to 10 feet</td>
<td>2.00</td>
</tr>
<tr>
<td><strong>Catalpa.</strong></td>
<td>8 to 10 feet</td>
<td>1.50</td>
</tr>
<tr>
<td><strong>Catalpa Bungei.</strong> (Umbrel-</td>
<td>6 to 7 feet</td>
<td>2.00</td>
</tr>
<tr>
<td>in Catalpa). Specimen trees,</td>
<td>$3.00 to $5.00 each</td>
<td></td>
</tr>
<tr>
<td><strong>CRAB APPLE, Bechtell's Double Flowering.</strong></td>
<td>3 to 4 feet</td>
<td>1.75</td>
</tr>
<tr>
<td><strong>ELM, American.</strong></td>
<td>8 to 10 feet</td>
<td>1.50</td>
</tr>
<tr>
<td><strong>LINDEN, American.</strong></td>
<td>8 to 10 feet</td>
<td>2.25</td>
</tr>
<tr>
<td>European.</td>
<td>6 to 8 feet</td>
<td>1.50</td>
</tr>
<tr>
<td><strong>LIQUIDAMBER, Sweet Gum.</strong></td>
<td>5 feet to 8 feet</td>
<td>2.25</td>
</tr>
<tr>
<td><strong>MAPLE, Norway.</strong></td>
<td>8 to 10 feet</td>
<td>2.00</td>
</tr>
<tr>
<td><strong>Rock or Sugar.</strong></td>
<td>8 to 10 feet</td>
<td>2.00</td>
</tr>
<tr>
<td><strong>Silver or soft.</strong></td>
<td>8 to 10 feet</td>
<td>1.50</td>
</tr>
<tr>
<td><strong>MAPLE, Japanese.</strong> leaves deep blood red, $3.50 to $5.00 each.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>OAK, Red.</strong></td>
<td>6 to 8 feet</td>
<td>2.75</td>
</tr>
<tr>
<td><strong>Scarlet.</strong></td>
<td>4 to 5 feet</td>
<td>3.00</td>
</tr>
<tr>
<td><strong>Pin.</strong></td>
<td>6 to 8 feet</td>
<td>3.75</td>
</tr>
<tr>
<td><strong>POPULAR, Carolina.</strong></td>
<td>10 to 12 feet</td>
<td>1.00</td>
</tr>
<tr>
<td><strong>Boliviana.</strong></td>
<td>8 to 10 feet</td>
<td>1.00</td>
</tr>
<tr>
<td><strong>Lombardy.</strong></td>
<td>6 to 8 feet</td>
<td>.75</td>
</tr>
<tr>
<td><strong>SALISBURY, Maidenhair or Ginkgo.</strong></td>
<td>6 to 8 feet</td>
<td>2.25</td>
</tr>
<tr>
<td><strong>SAVATIE CAPREA, Goat or Pussy Willow.</strong></td>
<td>6 to 7 feet</td>
<td>.75</td>
</tr>
<tr>
<td><strong>SCAMORE, American.</strong></td>
<td>6 to 8 feet</td>
<td>1.00</td>
</tr>
<tr>
<td><strong>European.</strong></td>
<td>6 to 8 feet</td>
<td>1.00</td>
</tr>
<tr>
<td><strong>TULIP TREE.</strong></td>
<td>6 to 8 feet</td>
<td>2.00</td>
</tr>
</tbody>
</table>

**WEEPING TREES.**

**MULBERRY, Tear Drop.**

1 year heads. 3.00 | 30.00 |

**BIRCH, Cut-leaved.** | 6 to 8 feet | 2.00 | 20.00 |

**WILLOW, Babylonica.** | 6 to 8 feet | 1.00 | 10.00 |

We do not guarantee or replace plants, shrubs or trees at prices quoted.
Spraying Pumps and Appliances

Spraying is of such importance that the Experiment Stations all over this country have given much of their attention to it, and their findings have been of inestimable value. Diseases and insects can no longer exist if the proper Insecticide is applied through the medium of an up-to-date spray apparatus.

Paragon Sprayers

These Sprayers are strongly constructed and can be easily operated by one man. Our patented, self-cleaning strainer prevents the necessity of first straining the liquid to be sprayed. The agitator also keeps the liquid thoroughly stirred. The spray nozzle has only 1-inch outlet and spreads the liquid well. All parts of the machine are made of the best material obtainable.

The reservoir is made of heavy galvanized iron. All essential fittings and valves are made of brass, making it strong and durable. The body of pump is cast iron, well ribbed, to prevent breakage. The screen is of heavy perforated brass and will last many years. The pump frame can easily be removed from tank when it needs cleaning and by running water through the machine after using, the entire machinery can be easily and thoroughly cleaned. Suitable for spraying Insecticides and Fungicides on trees, shrubs and vines, as well as the application of Whitewash and Cold Water Paints.

Price List of Paragon Sprayers

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. 1</td>
<td>Capacity, 5 gallons. Equipment, 5 feet 6-ply hose. 5 feet spray pipe, two spray nozzles.</td>
<td>$5.00</td>
</tr>
<tr>
<td>No. 3</td>
<td>Capacity, 12 gallons. Equipment, 10 feet 6-ply hose, 7½ feet spray pipe, two spray nozzles. Mounted on strong steel truck.</td>
<td>$13.00</td>
</tr>
<tr>
<td>No. 3</td>
<td>Machine without truck. Price. $18.00</td>
<td></td>
</tr>
<tr>
<td>No. 4</td>
<td>Capacity, 28 gallons. Equipment, 20 feet 6-ply hose, 10 feet spray pipe, two spray nozzles. Mounted on two strong 30-inch wheels.</td>
<td>$25.00</td>
</tr>
</tbody>
</table>

Send for descriptive circular giving detailed information.

Bamboo Brass Lined Sprayer

12-foot lengths .................................. net price, $4.50
10-foot lengths .................................. net price, 4.00
8-foot iron, wood-encased pipes ................ net price, 1.25

Gould’s “Bordeaux” Hand Sprayer

The “Bordeaux” is a brass pump for garden or greenhouse work. It is fitted with brass ball-valves which are proof against the action of acids or oils. The discharge hose is attached to the pump by a brass coupling. No suction hose is needed, as the pump rests in the soil. It is equipped with 3 feet of ¾-inch discharge hose and “Seneca” nozzle. Price ... $5.00.

Auto Compressed Air Spray

Can be suspended from the shoulder, allowing the free use of the arms. A few strokes of plunger in air chamber will compress enough air to discharge the entire contents. A practical method for spraying vegetables, fruits, vineyards, nursery, fruit trees, shrubs, etc. Extension fittings are made for spraying trees.

Auto Sprayer No. 1-B
10-foot, 36-inch hose, auto nostril, auto pop nozzle, $14.00

Auto Sprayer No. 1-D
Galvanized tank, with auto pop nozzle, $15.00

Brass Extension. Two feet, per length ... 30c.
Elbow .............................................. 30c.

Brandt Easy Sprayer

A compressed air sprayer made of Galvanized Steel. Holds one gallon. Is equipped with a double shut-off nozzle and is found a very satisfactory sprayer for gardens and small farms. Price, each, $2.50.

Send for descriptive circular giving detailed information.
Sprayers, Powder Dusters, Etc. Continued

The Robertson Compressed Air Sprayer

They give a continuous spray. By means of the universal nozzle the spray can be thrown on the under side of the leaves of plants and shrubs, the under side of beds and other furniture, into corners, behind doors, on top of mouldings, window casings, behind steam pipes, and other difficult places. Capacity, one quart. Tin Pump and Reservoir, each, 75c; Brass Pump and Reservoir, each, $1.50.

Insecticides and Fungicides

Liquid Insecticides and Poisons cannot be sent by mail.

Ant Eradicator. Useful against ants in lawns, gardens, etc. 8 oz. can, 25c.

Aphine. Kills plant lice of every species. This is a contact remedy. ¼ pt. 25c; ½ pt. 40c; pt. 65c; qt. $1.00; gal. $2.50.

Black Leaf 40. Soft-bodied, sucking insects may be effectively controlled by spraying with 'Black Leaf.' This is a contact remedy. 1 oz. bottle 25c; ½ lb. tin, $1.00; 2 lb. tin, $3.25; 10 lb. tin, $13.75.

Zenke's Liquid Fungicide. A powerful, reliable remedy for Leaf Spot, Leaf Rust, Scab, Mildew, Black and Brown Rot and most other Fungoid troubles. Per gallon, $3.00.

(Sufficient to make 50 gallons of solution.)

Fish Oil Soap. For destroying insects on Plants, Trees, Vines, etc. Active for several weeks. This is also a contact remedy. 1 lb. 25c; 5 lbs. $1.10; 10 lbs. 25c; or over, per lb., 16c.

Grape Dust. A non-poisonous powder for the remedy and control of mildew and rot on Grapes, Goose-berries, Roses, etc. 1 lb. 25c; 5 lbs. $1.00; 10 lbs. 25c.

Lime Sulphur Solution. For Fall, Winter and early Spring Spraying of San Jose Scale, Peach Leaf Curl, Bud Moth, Apple Aphis, Blister Mite, any Scale Insects or Bark Lice, 1 qt. 50c; ½ gal., 60c; 1 gal., 90c; 5 gals., $3.00; 10 gals., $6.50.

S. W. Dry Lime-Sulphur. Is a combination of lime and Sulphur which can be used not only as a dormant spray but also as a summer spray in combination with Arsenate of Lead. 1 lb. can, 30c; 5 lb. can, $1.25; 10 lb. can, $2.00; 25 lb. can, $4.00.

Nico-Fume Liquid. For destroying Aphis, Thrip and Red Spider. Contains 40 per cent nicotine. This is a contact remedy. ¼ lb., 65c; 1 lb., $2.00; 4 lbs., $7.50; 8 lbs., $14.50.

Nico-Fume Papers. Strips of paper strongly saturated with nicotine. These, when suspended and lighted, make one of the best and simplest methods of fumigating greenhouses. Price, air-tight cans, 24 sheets, $1.25; 144 sheets, $5.00; 295 sheets, $9.50.

Zenke's Compound Plant Insecticide. Is a contact remedy (Liquid). Very effective against Plant Lice, Black and White Fly, Mealy Bugs, Scale Insects, Eggs and Larva. A very effective wash for Palms and Rubber Plants. 8 oz. can, 25c; per gallon, $1.50. (One gallon is sufficient to make 20 to 35 gallons of solution.)

Zenke's New Plant Life (Liquid). It is a Plant Food containing in proper percentage All Elements essential to Plant Growth. Mix one quart with 50 gallons of water and water plants with the mixture to saturate soil. Use about one quart to one square foot of soil.

It is immediately available to absorption by plants and saves time and labor. 8 oz. can, 25c; gallon, $3.00. (One gallon is sufficient to make 200 gallons of solution.)

Scaleicide. Used according to directions will kill every San Jose Scale that comes in contact with it. 1 qt., 65c; 1 gal., $1.60; 5 gals., $6.50; 10 gals., $11.70; 30 gals., $38.85; 50 gals., $65.00.

Scale Destroyer, Target Brand. This preparation is a soluble, mineral oil, designed especially for destroying and preventing San Jose Scale. 1 qt., 60c; 1 gal., $1.40; 5 gals., $7.20; 30 gals., $28.80.

Slug Shot. Very effective in destroying Caterpillars, Currant, Gooseberry and Cabbage Worms, Potato, Onion, Squash and Cucumber Bugs. Rose Slugs, Rose Beetle, etc., etc., etc., 1 lb., carton 25c; 5 lbs., 60c; 10 lbs., $1.15.

Sulphur, Powdered. Used to prevent and cure mildew on plants. 1 lb., 10c; 2 lbs., 15c; 5 lbs., 35c; 10 lbs., 60c.

Sulpho-Tobacco Soap. Destroys Black and Green Aphis, Mealy Bug, Red Spider, etc., on Plants, Shrubs and Trees. This is a contact remedy. 3 oz., cake 10c; (by mail, 15c); 3 oz. cake, 20c; (by mail, 25c).

Tobacco Dust. A sure remedy for Green Fly, Aphis, Fleas, Beetles, etc. 1 lb. 10c; 5 lbs. 25c; 100 lbs. $2.50.

Tobacco Dust for Fumigating. 1 lb., 10c; 3 lbs., 25c; 10 lbs., 60c; 25 lbs., $1.25; 100 lbs., $4.00.

Tobacco Steams. Used for fumigating plants to kill insects, and as a mulch for roses, asters, lettuce, etc. 1 lb., 5c; bale of about 125 lbs., $2.00.

Moss, Peat, Etc.

Moss, Green Sheet. For hanging baskets, etc. Per bale, 40c; bundle of 5 bales, $1.50.

Moss, Sphagnum. For packing plants and growing Orchids, etc. Per lb., 15c; per bale, $2.50.

Peat, Jersey. Rotted. Per peck, 40c; per bu., $1.50.

Potting Soil. This is a mixture especially prepared by us, and such as are used as our greenhouses. It is suitable for all ordinary plants and bulbs. Peck, 35c; bushel, $1.00; barrel, $1.50.

Prepared Bulb Fibre

Growing bulbs, such as Roman Hyacinths, Dutch Hyacinths, Tulips and Narcissus in special prepared fibre has proven a great success; we strongly recommend our customers to try a few of the various bulbs in this way. The bulbs are potted the same way as in ordinary soil, just showing them their toes. Do not press the fibre tightly, otherwise the roots do not work freely. Once potted, they require hardly any attention, only care must be taken to keep the compost moist, but not too wet. Peck, 40c; bushel $1.50.

Edwards' Legume Bacteria

To inoculate 30 pounds of seed.............. $0.50
To inoculate 60 pounds of seed......... 1.25
To inoculate 300 pounds of seed....... 5.00

In ordering, be sure to name crop to be inoculated.
**Flower Pots and Saucers**

Our Flower Pots and Saucers are standard make, of extra fine finish, and bear shipping well.

No Charge for Packing.

---

**Flower Pots**

<table>
<thead>
<tr>
<th>Size</th>
<th>Doz.</th>
<th>Per 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>.02</td>
<td>$0.20</td>
</tr>
<tr>
<td>2 1/2</td>
<td>.03</td>
<td>$0.25</td>
</tr>
<tr>
<td>3</td>
<td>.05</td>
<td>$0.30</td>
</tr>
<tr>
<td>3 1/2</td>
<td>.06</td>
<td>$0.35</td>
</tr>
<tr>
<td>4</td>
<td>.08</td>
<td>$0.40</td>
</tr>
<tr>
<td>5</td>
<td>.10</td>
<td>$0.50</td>
</tr>
<tr>
<td>6</td>
<td>.15</td>
<td>$0.75</td>
</tr>
<tr>
<td>7</td>
<td>.20</td>
<td>$1.00</td>
</tr>
<tr>
<td>8</td>
<td>.25</td>
<td>$1.25</td>
</tr>
<tr>
<td>9</td>
<td>.30</td>
<td>$1.50</td>
</tr>
<tr>
<td>10</td>
<td>.40</td>
<td>$2.00</td>
</tr>
<tr>
<td>12</td>
<td>.75</td>
<td>$3.00</td>
</tr>
<tr>
<td>14</td>
<td>1.50</td>
<td>$4.25</td>
</tr>
<tr>
<td>16</td>
<td>2.50</td>
<td>$6.00</td>
</tr>
</tbody>
</table>

---

**Fern Pans**

These Pans are especially adapted for linings to porcelain and Silver Fern Pans.

<table>
<thead>
<tr>
<th>Size</th>
<th>Doz.</th>
<th>Per 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 1/4</td>
<td>.08</td>
<td>$0.80</td>
</tr>
<tr>
<td>6 1/2</td>
<td>.10</td>
<td>$1.00</td>
</tr>
<tr>
<td>7 1/2</td>
<td>.15</td>
<td>$1.50</td>
</tr>
</tbody>
</table>

---

**Fibrolita Rolling Stands**

The device consists of two steel pieces securely riveted and equipped with casters; a strong and compact support for plants, and can be readily rolled about from place to place without injuring the floor or carpet.

---

**Azalea Flower Pots**

These are the same style as our standard Flower Pots, but not so deep. Suitable for Azaleas, Bulbs, Ferns, Spireas, etc.

<table>
<thead>
<tr>
<th>Size</th>
<th>Doz.</th>
<th>Per 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 inch</td>
<td>.96</td>
<td>$0.96</td>
</tr>
<tr>
<td>6</td>
<td>.96</td>
<td>$0.96</td>
</tr>
<tr>
<td>7</td>
<td>1.00</td>
<td>$1.00</td>
</tr>
<tr>
<td>8</td>
<td>1.50</td>
<td>$1.50</td>
</tr>
<tr>
<td>10</td>
<td>2.00</td>
<td>$2.00</td>
</tr>
<tr>
<td>12</td>
<td>2.50</td>
<td>$2.50</td>
</tr>
</tbody>
</table>

---

**Round Seed Pans**

These are the same style as our standard Pots, but not so deep, and are suitable for Cacti, Begonias, Tulips, etc.

<table>
<thead>
<tr>
<th>Size</th>
<th>Doz.</th>
<th>Per 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 inch</td>
<td>.06</td>
<td>$0.06</td>
</tr>
<tr>
<td>6</td>
<td>.10</td>
<td>$0.10</td>
</tr>
<tr>
<td>7</td>
<td>1.00</td>
<td>$1.00</td>
</tr>
<tr>
<td>8</td>
<td>1.50</td>
<td>$1.50</td>
</tr>
<tr>
<td>10</td>
<td>2.00</td>
<td>$2.00</td>
</tr>
<tr>
<td>12</td>
<td>2.50</td>
<td>$2.50</td>
</tr>
</tbody>
</table>

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**Maytree Moisture Proof Flower Pot Saucers**

Maytree flower-pot saucers are superior in every way to all kinds of flower-pot saucers—are practically non-destructible and should last forever. Are a rich, reddish-brown color, with a smooth wax finish that will not wear off and will not mar or scratch the finest surface. Are guaranteed to always remain absolutely moisture proof.

<table>
<thead>
<tr>
<th>Size</th>
<th>Doz.</th>
<th>Per 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 inch</td>
<td>.15</td>
<td>$0.15</td>
</tr>
<tr>
<td>6</td>
<td>.20</td>
<td>$0.20</td>
</tr>
<tr>
<td>7</td>
<td>.25</td>
<td>$0.25</td>
</tr>
<tr>
<td>8</td>
<td>.30</td>
<td>$0.30</td>
</tr>
<tr>
<td>9</td>
<td>.35</td>
<td>$0.35</td>
</tr>
<tr>
<td>10</td>
<td>.40</td>
<td>$0.40</td>
</tr>
<tr>
<td>11</td>
<td>.45</td>
<td>$0.45</td>
</tr>
<tr>
<td>12</td>
<td>.50</td>
<td>$0.50</td>
</tr>
</tbody>
</table>

---

**American Plant Tubs**

An excellent tub, neat and durable. Made from 1/2 inch Cypress, with iron handles and feet; 3 iron hoops and 2 coats of green paint.

<table>
<thead>
<tr>
<th>No.</th>
<th>Size</th>
<th>Doz.</th>
<th>Per 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4 1/2 inches diameter. 11 1/2 inches high.</td>
<td>$1.40</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>3 1/2 inches diameter. 11 1/2 inches high.</td>
<td>1.65</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>3 1/2 inches diameter. 11 1/2 inches high.</td>
<td>1.90</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>3 1/2 inches diameter. 11 1/2 inches high.</td>
<td>2.25</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>3 1/2 inches diameter. 11 1/2 inches high.</td>
<td>2.50</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>3 1/2 inches diameter. 11 1/2 inches high.</td>
<td>2.75</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>3 1/2 inches diameter. 11 1/2 inches high.</td>
<td>3.00</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>3 1/2 inches diameter. 11 1/2 inches high.</td>
<td>3.25</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>3 1/2 inches diameter. 11 1/2 inches high.</td>
<td>3.50</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>3 1/2 inches diameter. 11 1/2 inches high.</td>
<td>3.75</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>3 1/2 inches diameter. 11 1/2 inches high.</td>
<td>4.00</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>3 1/2 inches diameter. 11 1/2 inches high.</td>
<td>4.25</td>
<td></td>
</tr>
</tbody>
</table>

---

**Cedar Plant Tubs**

Made of seasoned selected Virginia White Cedar, bound with steel hoops. Painted green, inside and out, and top edge finished with round bevel.

<table>
<thead>
<tr>
<th>No.</th>
<th>Size</th>
<th>Doz.</th>
<th>Per 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>4 1/2 inches diameter. 8 1/2 inches high.</td>
<td>$0.60</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>4 1/2 inches diameter. 8 1/2 inches high.</td>
<td>$0.85</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>4 1/2 inches diameter. 8 1/2 inches high.</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>4 1/2 inches diameter. 8 1/2 inches high.</td>
<td>1.15</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>4 1/2 inches diameter. 8 1/2 inches high.</td>
<td>1.30</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>4 1/2 inches diameter. 8 1/2 inches high.</td>
<td>1.45</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>4 1/2 inches diameter. 8 1/2 inches high.</td>
<td>1.60</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>4 1/2 inches diameter. 8 1/2 inches high.</td>
<td>1.75</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>4 1/2 inches diameter. 8 1/2 inches high.</td>
<td>1.90</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>4 1/2 inches diameter. 8 1/2 inches high.</td>
<td>2.00</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>4 1/2 inches diameter. 8 1/2 inches high.</td>
<td>2.15</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>4 1/2 inches diameter. 8 1/2 inches high.</td>
<td>2.30</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>4 1/2 inches diameter. 8 1/2 inches high.</td>
<td>2.45</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>4 1/2 inches diameter. 8 1/2 inches high.</td>
<td>2.60</td>
<td></td>
</tr>
</tbody>
</table>
Horticultural Tools and Sundries

CANES. Six to eight feet long, for plant stakes; per 100... $1.75
Extra strong, eight to twelve feet: per 100... $2.00

CANEY. For making baskets, etc. per 100... $1.75

GLASS CUTTER, ECLIPSE. The best cheap cutter on the market. Each, 15c; per dozen... $1.50

GLAZING POINTS, PEEPERLESS. Will stop your glass from sliding; made of galvanized steel wire: Per 1,000
No. 1. For small single-thick glass... 75c
No. 2. For large single-thick glass... 75c
No. 2½. For double-thick glass... 75c

GLAZING POINTS, ZING CITY. Effective on large or small glass; easy to drive, easy to extract.
Per lb... 60c

KNIVES, PRUNING. $1.25 to $2.00
KNIVES, BUDDING. $1.00 to $1.75

KNIVES, ASPARAGUS. American pattern...

LABELS, WOOD. For pots, painted. per 100... 60c
per 1000... 30c
4 x ½-inch... 30c 1½-inch... 25c
5 x ½-inch... 30c 2½-inch... 25c
6 x ½-inch... 30c 3½-inch... 25c
8 x ½-inch... 60c 1-inch... 60c
10 x ½-inch... 70c 1½-inch... 60c
12 x ½-inch... 90c

LABELS, Tree, notched, c o o p e r wired; per 100 25c; per 1,000 20c

LABELS, Tree, copper. No. 1: per 100 1.50; No. 2, per 100 2.00

LAwn CLEAnER PENNSYLVANIA

This machine will clean your lawn more thoroughly and quicker than any other four men can do it with hand rakes, and greatly benefit the turf.
In the Autumn it takes up the heaviest fall of leaves. It is made of metal, wood and canvas, and is put together in the most durable and thorough manner. Price... $20.00

LAMPS. DEFIANCE FUMIGATING. (For use in greenhouses.) It burns kerosene. Used by prominent Market Gardeners all over the country.
Each, 65c; per dozen, $6.50.

MASTICA. For glazing green-houses. One gallon will cover about 300 square feet of sash. One gallon... $2.65

MASTICA GLAZING MACHINE...

MATS, HOTBED—Strong Burlap, Indestructible and warm. Size, 76x76 inches...

MATTOCK, LONG CUTTER. With handle...

M A T T O C K, CRONK’S G A R D E N...

PLANT BED CLOTH. A substitute for glass, answering many uses equally well.
Light Grade, per yard... 10c
Medium Grade, per yard... 25c
Heavy Grade, per yard... 35c
Write for special prices on large lots.

PRUNING KNIVES, TREE. Improved.
Price...

PRUNING KNIVES, TREE. Happy Though Price, 6 ft... $1.50
8 ft... $1.75
10 ft... $2.00

PRUNING KNIVES, TREE—Detroit.
Price...

PRUNERS, LITTLE GIANT TREE, To use on a pole.
Price...

WATERS’ TREE, with Pole, 3 ft, 60c
PRUNING SHEARS, RED CLIPPER.
No. 1... $2.75
No. 2... 2.50

PRUNING SHEARS, TIP-TOP...

PRUNING SHEARS, ORCHARD KING.
Price...

PRUNING SHEARS, HAND California Pattern, 9-inch... 75c
French. 8-inch... 1.50
Wiss Heavy. Fine quality, 9 in. 2.75
Ladies’ Hand... 1.25
PUTTY, PEEPERLESS BLACK GLAZING. For glazing greenhouses. Remains flexible and pliable for years.
Gallon...

PUTTY, TWENLOW’S LIQUID GLAZING. For bedding glass in sash. One gallon will cover about 600 running feet (one side).
Gallon...

PUTTY BULB. A useful tool for applying liquid putty and glazing greenhouses...

RAFFIA, NATURAL. The best tying material for fruits, used for making hats, baskets, etc.
Per lb., 60c; 5 lbs., 2.50.

RAFFIA, COLORED. For making baskets and other work. In following colors: Black, Brown, Orange, Pink, Red and Yellow.
Oz., 10c; 1 lb., 1.00.

REEDS (RATTAN). For basket making, etc.
No. OZ. ½ lb.
1... $0.15 $0.55 $2.00
3... 15 1.00 2.50
4... 12 0.45 1.50
5... 10 0.35 1.25

SASH, HOTBED, UNGLAZED. Made from strictly clean cypress lumber. White lead used on the tendons, and iron dowel pins at the corners on the floor.

SASH, HOTBED, GLAZED. Made from a limited supply of the finest cypress lumber. Black lead used on layers of tin, iron and wood, filled with bellows glass, and finished with iron dowel pins at the corners on the floor.

No. 1. 3½ ft., three rows, 10-inch glass. Each, $2.25; dozen, $25.00
No. 2. 4½ ft., five rows, 8-inch glass. Each, $2.50; dozen, $28.00.

S S A W S, P R U N I N G. 16-inch... 90c
18-inch...

S A W S, PRUNING, Double edge...

SEED SOWER, LITTLE GIANT. For sowing wheat, oats, rye, flax, grass seed, clover seed, etc.; in fact any kind of seed broadcast. It weighs about two pounds...

SPRINKLER, RUBBER, SCOLLAY’S. Indispensable for floral work and window gardening. Large size...

THERMOMETERS. Hotbed or Mushroom...

WATERING POTS, GALVANIZED. Made from best quality of iron, and heavily galvanized. Two roses with each pot for fine and coarse watering.
Long Spout, 4 quart...
2-quart...
4-quart...
8-quart, 3.00; 10 quart, 3.50; 12 quart...
WAX, GRAFTING. ½ lb., 15c; 1 lb., 20c
WIRE FOLDING PLANT STANDS.
The construction of the shelves or trays is such that there is more room for the pots and foliage than any other plant stand that takes the same amount of room on the floor.
3-Tray Wire Stand—Trays 7½ inches wide x 30 inches long...
2-Tray Rack Stand—Trays 7½ inches wide x 30 inches long...
1-Tray Wire Stand—Tray 10 inches wide x 24 inches long...

WIRE WINDOW SHELF FOR PLANTS. Strong, compact, with adjustable steel brackets; can be applied to any window molding on flat part of wall. Brackets are constructed so as to allow for curtains between window and plants.
36-inch Shelf, by 7½ inches wide, with brackets complete...
48-inch Shelf, by 7½ inches wide, with brackets complete...

Lack of space prevents us listing all the Horticultural Tools and Sundries we carry—but will be pleased to supply any equipment needed at current prices.

PAGE 41
Prairie State Incubators

**PRAIRIE STATE SAND TRAY INCUBATORS**

If you are in search of the best Incubator manufactured, the one that will hatch the largest number of strong, vigorous chicks, the Prairie State is the machine to buy.

The Prairie State Incubator was first marketed in 1889, incorporating three essential principles in design which have been continued to the present day—top-radiant heat, down-draft ventilation, and applied moisture. They have been improved from time to time as experience has warranted, but in points of efficiency, economy, safety, and service they have held unchanged the title through these years of national standard in incubator construction.

They are built of cypress—the wood everlasting—highly finished for attractive appearance; double-cased, positively insulated with high grade cotton and fitted with the best grade hardware on the market. Temperature regulation is automatic and sensitive, accomplished by zinc and steel toggle-joint thermostat. The heating and ventilating currents are in one, so that when heat is supplied ventilation is assured. These currents are furnished by an exclusive design heater, examined and approved under direction of Underwriters' Laboratories, Inc.

Every Prairie State is insurable. Moisture is constantly supplied by the famous patented Prairie State Sand Tray, insuring uniform evaporation at all times and uniform, relative humidity in the egg chamber.

Built in four sizes, ranging from 100 to 250 eggs. Egg Trays of light basswood and galvanized wire cloth. Nursery mats are provided for the four machines. All Prairie States are equipped with thermometers, egg testers, lamps and everything complete, ready to operate. Air distribution in all models is effected by the patented eddy-current distributor sheet at top of machine. The four diffusion machines have double bottoms with nursery; ventilation accomplished by the air diffusion method.

**PRICE LIST OF PRAIRIE STATE SAND TRAY DIFFUSION INCUBATORS**

<table>
<thead>
<tr>
<th>Standard Series No.</th>
<th>100 eggs</th>
<th>150 eggs</th>
<th>250 eggs</th>
<th>500 eggs</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. 1. 100 lbs.</td>
<td>$1.25</td>
<td>$2.50</td>
<td>$5.00</td>
<td>$10.00</td>
</tr>
<tr>
<td>No. 2. 150 lbs.</td>
<td>$2.00</td>
<td>$4.00</td>
<td>$8.00</td>
<td>$16.00</td>
</tr>
<tr>
<td>No. 3. 250 lbs.</td>
<td>$3.00</td>
<td>$6.00</td>
<td>$12.00</td>
<td>$24.00</td>
</tr>
<tr>
<td>No. 4. 500 lbs.</td>
<td>$5.00</td>
<td>$10.00</td>
<td>$20.00</td>
<td>$40.00</td>
</tr>
</tbody>
</table>

**Prairie State Stove Brooders**

These Stove Brooders are alike in all cast iron construction, solid base without legs to make a hot place underneath which chicks might reach. Substantial, cannot be knocked over. Serviceable, safe and portable. Adapted for any form of brooding or type of brooder house. Hover canopies of galvanized steel, exclusive Prairie State flat design for most uniform temperature and ventilation distribution, hinged in center to provide free access to all parts for fuel charging and cleaning. Fire bowl of ample capacity to carry fire 12 to 24 hours, making magazine feed unnecessary. The “Junior’” stove care for flocks of 200 up to 1000 or more. “No. 0 Junior” up to 700. All canopies fitted with adjustable curtain. The “Junior” Stove Brooder is fitted with triple control wafer thermostatic regulator, 52 inch canopy, and shaker grates. “No. 0 Junior” has double control regulator, 46 inch canopy, and dump grate. “Junior Stove” 23½ inches high, 9 inches diameter, 9 inch grate. “No. 0 Junior” 21 inches high, 11 inch interior diameter, 9 inch grate.

Prairie State “Junior” Stove Brooder—Weight 115 lbs. $18.00
Prairie State “No. 0 Junior” Stove Brooder—Weight 80 lbs. $13.00

**Prairie State Portable Hovers**

No. 1. Capacity, 65 to 100 chicks, weight, crated, 50 lbs. $12.00
Prairie State Junior Portable Hover. Capacity, 50 to 75 chicks, weight, crated, 37 lbs. $10.00

**Prairie State Universal Hovers**

Universal Hover. With lamp case, smoke conductors, lamp, thermometer, and heat regulator...

Universal Hover. With lamp case, smoke conductors, and thermometer...

Universal Hover. With lamp, smoke pipes and thermometer (without lamp case).

When used indoors alone, lamp case is not required.

**Prairie State Incubator and Brooder Thermometers**

Incubator Thermometer, incline, with holder. Each, postpaid...

Brooder Thermometer, for thermostat, with holders. Each, postpaid...

**Prairie State Combination Outdoor Colony Brooders**

No. 1. 3 feet wide, 6 feet long, two compartments, weight, crated, 300 lbs. $22.00
No. 2. 2½ feet wide, 5 feet long, two compartments, weight, crated, 208 lbs. $18.00

Heat regulator attached to any of the above brooders, extra...

$1.25

SEND FOR DESCRIPTIVE CATALOGUE OF PRAIRIE STATE APPLIANCES.

Prices on all Poultry Feeds and Appliances Subject to Change Without Notice.
THE new "Home Hatcher" Incubator is the result of many years of experience in the field of incubation. This machine will take its place as the very best of its kind in its construction and lasting qualities, as well as in its ability to produce the largest percentage of good, healthy chicks at a minimum cost of operation. The case is of double wall construction, the inner wall being of composition board of especially high insulating value and the outer casing of cypress, which has been chosen for its ability to withstand the most adverse conditions without deterioration, in preference to the cheaper redwood so commonly used in incubator construction, which because of its brittle nature will split where even the best care is taken.

The heating system is of copper throughout, the tubes being of eight ounce and the boiler of twelve ounce copper. The additional weight given the boiler is an added factor of safety inasmuch as it is at this point that the heating system receives the greatest abuse. Attention is directed to the fact that this is the most substantial hot water heating system offered in an incubator and will eliminate many of the complaints regarding leaky boilers. Construction throughout the entire machine is based on the same high regard for quality.

The "Home Hatcher" Incubator is manufactured in the two sizes most in demand by that trade to which it will particularly appeal. Sizes and prices are as follows:

<table>
<thead>
<tr>
<th>Size</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>125 egg size</td>
<td>$23.70</td>
</tr>
<tr>
<td>240 egg size</td>
<td>$36.50</td>
</tr>
</tbody>
</table>

THE NEWTOWN COAL BURNING COLONY BROODER

With the certainty that the highest prices ever known will prevail next season for poultry and eggs, no poultryman can afford to run another month without a modern NEWTOWN COLONY BROODER.

This is true whether you have no Brooder or an inferior make of machine, because no one ever made money by using a non-dependable, half worn out, "cheap" Brooder.

The Newtown "raises the most chicks and the best chicks with the least labor and at lowest cost." Burns Coal, the cheapest fuel—is self-feeding, self-regulating, free from fire danger—broods any number of chicks up to 1200 in one flock according to the size of the stove and size of the building—reduces labor. It was the first brooder of this type ever put on the market—has been longer in use than any other and is endorsed by the most successful poultry men in every state of the Union and nine foreign countries—almost in every nook of the world where poultry is raised the Newtown is used.

There can surely be no good reason to delay the purchase of a Newtown another week. See them on display at our store and we know you will buy a Newtown. Made in five sizes:

<table>
<thead>
<tr>
<th>Size</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. 6, Capacity, 200 chicks or less</td>
<td>$18.50</td>
</tr>
<tr>
<td>No. 7, Capacity, 250 chicks or less</td>
<td>$22.00</td>
</tr>
<tr>
<td>No. 10, Capacity, 300 chicks or less</td>
<td>$26.25</td>
</tr>
<tr>
<td>No. 11, Capacity, 500 chicks or less</td>
<td>$31.00</td>
</tr>
<tr>
<td>No. 12, Capacity, 1200 chicks or less</td>
<td>$39.50</td>
</tr>
</tbody>
</table>

Ask for our Brooder Catalogue. It contains valuable information for every poultryman. It's free.

The Newtown Oil-Burning Colony Brooder

For several years the coal-burning colony brooder has been generally recognized as the acme of brooding efficiency, and as a result of the inability to procure the proper grade of chestnut anthracite coal, probably the greatest problem of poultrymen was to find a substitute for the coal heated brooder.

One of the big faults of oil-burning brooders has been their inability to produce and properly distribute over a large floor space sufficient quantity of heat to make possible the successful brooding of large flocks of chicks in cold weather.

The construction of the Newtown Oil-Burning Colony Brooder is simplicity itself. It consists of the heater and deflector. The heater includes the blue flame wickless burner, automatic oil feeder, and oil fount all securely mounted on a heavy metal base, and the heat radiator which is bolted within the deflector.

Each brooder is shipped with everything complete in one crate, ready to operate. A thermometer and full instructions for operating are furnished with each brooder.

<table>
<thead>
<tr>
<th>Diameter of Diameter of Heat</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. 18, 36 inches</td>
<td>18 inches</td>
</tr>
<tr>
<td>No. 22, 52 inches</td>
<td>22 inches</td>
</tr>
</tbody>
</table>

CALL ON US FOR DETAILED PARTICULARS OR SEND FOR COMPLETE CATALOGUE OF NEWTOWN GIANT BROODER STOVES, INCUBATORS, PORTABLE COLONY HOUSES, ETC.

Prices on all Poultry Feeds and Appliances Subject to Change Without Notice.
MANN'S GREEN BONE CUTTER

The poultry raiser wants eggs, and wants them when eggs are worth the most. Green Bone and raw meat produce them. The hen will do her part if you give her a chance. The Mann's Bone Cutter gives you a better chance than does any other Bone Cutter.

No. 5-C. For flocks of 25 to 50 hens. Weight, 35 lbs. Price. $9.50.
No. 5-B. For flocks of 25 to 50 hens. Weight, 60 lbs. Price. $12.50.
No. 5-B. M. For flocks of 25 to 50 hens. Weight, 85 lbs. Price. $16.00.

The No. 5-C, No. 5-B, and No. 5-B M. do not have the split hinged cylinder.

No. 7. For flocks of 75 to 150 hens. Weight, 107 lbs. Price. $18.50.

No. 7½. Capacity, 50 to 100 lbs. per hour. Weight, 150 lbs. Price. $25.00.

No. 9. For flocks of 200 to 300 hens. Weight, 170 lbs. Price. $28.50.

No. 11. Capacity, 100 lbs. and upwards per hour. Weight, 215 lbs. Price. $40.00.

No. 12. Capacity, 150 lbs. per hour. Weight, 260 lbs. Price. $50.00.

Every Hand-Power Mann Bone Cutter is warranted by us against breakage for one year, and we hereby agree to replace, free of charge, any breakage which occurs while cutting bone within one year from date of purchase, provided purchaser pays express charges on broken part. This insures the purchaser a first-class article.

Send for Free Descriptive Catalogue.

DOUBLE QUICK GRAIN SPROUTER

The Perpetual Poultry Silo that grows Green Feed while you wait. Sprouts in 20 to 30 hours and forces growths of an inch to two a day. Makes 2 to 6 bushels of green feed from one of dry grain. Many thousands of the Double Quick now in every part of the United States and Canada, and is in use in almost every civilized country in the world.

PRICES, CAPACITY, WEIGHT, SIZE

No. 1. 2/3 bushel, 2 trays, 25 to 37 hens, 18 x 14 x 23 inches, 25 pounds. $5.00.
No. 2. 2/3 bushel, 4 trays, 50 to 75 hens, 18 x 14 x 30 inches, 35 pounds. $7.50.
No. 3. 1 bushel, 5 trays, 100 to 150 hens, 21 x 17 x 40 inches, 55 pounds. $12.00.
No. 4. 2 bushels, 6 trays, 200 to 300 hens, 25 x 20 x 44 inches, 75 pounds. $19.75.
No. 5. 4 bushels, 12 trays, 400 to 600 hens, 39 x 25 x 45 inches, 125 pounds. $29.00.
No. 6. 8 bushels, 16 trays, 800 to 1,200 hens, 52 x 27 x 60 inches, 200 pounds. 44.00.

NOTE 1:—Capacities are given in dry grain.
NOTE 2:—Furnished with lamp, thermometer, directions, etc.
NOTE 3:—Largest sizes will pass through ordinary doors.

"RED CHIEF" Rapid Grinding Feed and Grist Mills

No. 1.—Just the mill for small poultry raisers. Clamps or bolts to box as desired. Has hooks on which to hang a bucket. Capacity 3/4 to 1 bushel per hour. Price. $4.00.

No. 2.—This is the best $5.00 Mill made for grinding all kinds of grain. The feed can be regulated for very fine grinding. Clamps or bolts to box as desired. Has hooks on which to hang a bucket. Capacity 1 to 1½ bushels per hour. Price. $5.00.

No. 5.—This Mill also clamps or bolts to box and has hooks on which to hang a bucket. It is also equipped with fly wheel instead of crank which makes it run smoothly with least possible power. Capacity 2 to 4 bushels per hour. Price. $7.00.

No. 10—Mounted on stand (See cut). This will grind Coffee, Spices, Chicken Feed, Cracks Peas, etc. Capacity 2 to 4 bushels per hour. Price. $8.50.

No. 12—Mounted on stand. We consider this the finest hand mill made. Steel axes, bronze boxes and a heavy fly wheel. Capacity 3 to 4 bushels per hour. Price. $14.00.

No. 15—For engine three-quarters horse-power or over. It has bronze boxes, steel axes, in fact all of the good features of the No. 20, except that it has no extra pulley and the capacity is not so great. It can be run with a crank when engine is not running. Capacity 5 to 8 bushels per hour. Price. $14.00.

No. 20—For grinding Corn Meal, Graham Flour, Stock Feed, etc., with a speed of 300 to 450 revolutions per minute, will grind 10 to 20 bushels of feed per hour. Power required 1 ½ to 2 horse-power engine. Patent tension for regulating size of ground material, making change of burrs unnecessary. Tight and loose pulley, 10 inches in diameter, 2 ¼ inch face. Reversible belt shift. Feed Regulator. All bearings, bronze bearing metal. Weight, cased, 100 lbs. Price. $19.50. Stand, extra. $3.50. Separator, extra. $6.00.

"RED CHIEF" Hand Corn Sheller

Is guaranteed to do as good, if not better work than any other Sheller on the market. Has patent oval-shaped teeth, shelling the corn without cracking the grains. Only sheller safe to use for shelling seed corn. Shells clean, taking off least shaff than any other sheller. Throws the cobs outside every time.

Clamps on barrel or tub as well as on box. Malleable Iron Crank screws on. Requires no wrench. Tension directly on cob, not on hopper, which makes sheller run smoother, no force being required to work the hopper. Price. $2.00.

Pop Corn Attachment, for shelling Pop Corn, 40c extra.

Red Chief Box Seed Corn Sheller. Price...$7.50.

Prices on all Poultry Feeds and Appliances Subject to Change Without Notice.
UNION LOCK Poultry Fencing

All of the cables are the same length, and run the whole length of the fence. Every part can be stretched, per fence requires no top or bottom rail and no more posts than the ordinary woven stock fence, or about one-half the number needed in ordinary poultry netting. Union Fence is especially adapted for use where a light, attractive and neat appearance is required.

12-inch, bale of 10 rods $2.00
18-inch, bale of 10 rods $2.50
24-inch, bale of 10 rods $3.25
72-inch, bale of 10 rods $6.50.

Lawn Park Coop

Size, closed, 18x24 inches: with park extended, 18x35 inches.
Height, 24 inches. Price $8.75.

Lightning Lice Killing Machine

No. 1 Machine, suitable for young chicks or pigeons...
No. 2 Machine, suitable for either young chicks or pigeons, or to clean 8 Leghorns or 4 fowls the size of Plymouth Rocks at a time...
No. 3 Machine, suitable for chickens of the Mediterranean class and birds, such as Turkeys, Cochins and Brahmas. This size is not suitable for young chicks or pigeons...

Egg Boxes

Erye. 15 egg size, each, 25c; 30 egg size, each, 35c.
Paper Carton. 1 dozen size, per dozen, 15c; per 100, $1.00.
Continental Safety Carton. 1 dozen size, per dozen, 20c; per 100, $1.25.

Egg Carriers

Humpty Dumpty. 6 dozen size, each, 50c; 9 dozen size, each, 55c; 12 dozen size, each, 60c; 30 dozen size, each $1.00.
Moe’s Regal. No. 14—15 eggs, each, 20c; No. 15—30 eggs, each, 30c; No. 16—50 eggs, each, 60c; No. 17—100 eggs, each $1.00.

Egg Cabinets

Wood’s Revolving. 150 egg size, $3.50; 288 egg size, $5.50.
Wood’s Pony Cabinet. 72 egg size, each $1.00.

INCUBATOR AND BROODER LAMPS, BURNERS AND WICKS

Incubator Lamps. No. 1 for no. 0 incubator, 60c.
Incubator Lamps. No. 5 for no. 1 incubator and all sizes of poultry brooders and Universal Hover, 75c.
Incubator Lamps. No. 3 for no. 2 and no. 3 incubators, 85c.

Lamp Burners. Sun Sunburner, No. 1, using 1/2-in.
wick, 50c; No. 2, using 1-in. wick, 60c; No. 3, using 1 1/2-in. wick, 75c.

Lamp Wicks. No. 1 and No. 2 Wicks, dozen, 20c; No. 3 Wicks, dozen, 30c.

LEG BANDS

Moe’s Key Ring (Celluloid). For American and Mediterranean Breeds. 10 colors—black, white, dark blue, pink, light blue, red, garnet, green, yellow, purple. Per dozen, 15c; 25 for 30c; 50 for 50c; 100 for 75c.

Pigeon and Baby Chick Sizers. (Celluloid). Per dozen, 10c; 25 for 20c; 50 for 35c; 100 for 50c.

Smith Double Clinch. (Aluminum). Per dozen, 15c; 25 for 25c; 50 for 50c; 100 for 75c.

Leader Adjustable. (Aluminum). No. 1—For Bantams and Leghorns. No. 2—For all larger breeds and Turkeys. Per dozen, 15c; 25 for 25c; 50 for 50c; 100 for 75c.

Mon Scif Locking. (Metal). Per dozen, 15c; 25 for 25c; 50 for 50c; 100 for 75c.

Double Clinch. (Aluminum). For Pigeons. Per dozen, 15c; 25 for 30c; 50 for 50c; 100 for 75c.

NEST EGGS

Lice Expelling. Each, 5c; per dozen, 50c.
Porcelain. 3 for 10c; per dozen, 30c.
Lime. 3 for 10c; per dozen, 30c.

NESTS, POULTRY AND PIGEON

Wire, Hen. Each, 15c; per dozen, $1.50.
Clay, Pigeon, 8-inch, each, 10c; per dozen, $1.00.
Indurated Fibre, Pigeon. Each, 30c; per dozen, $3.00.

ROOFING PAPERS

Tin Roofing Caps. Per box, 10c.
Bushing Nails. Per box, 8 c.
Cork Roof Paint. Per gallon, $1.00.
Flintkote Plastic. 1 qt., 40c; 1 gallon, $1.25.

FEEDING DEVICES FOR POULTRY

Moe’s Round Baby Chick Feeder

The most convenient and commodious feeder on the market. Can also be used for water. Moe’s.feeder manufactured in two sizes.

Wall Chick Feeder

Wire screen keeps chicks from wasting the feed. Sloping top prevents roosting. 10-in. each, 75c; doz., $7.50.
20-in. each, $1.25; doz., $12.50.

POULTRY FEEDER, 1-2-3

For dry mash, scraps, shells, grit, charcoal or any poultry feed. When used for one kind of feed only, take out separator; for two kinds put separator in one end; when used for three kinds, say scraps, shells and grit, put separator in the middle and you have three separate feeders.

Pricing on all Poultry Feeds and Appliances subject to change without notice.
Feeding Devices for Poultry—Con’t.

**Atsatt’s Feeders**

Equal good for water or food. Comfort for the poultry, is very little trouble. No expense and no danger.

<table>
<thead>
<tr>
<th>Chick size</th>
<th>Poultry size</th>
<th>Price/each</th>
<th>Price/doz.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>.35c</td>
<td>.75c</td>
</tr>
</tbody>
</table>

**Felker’s Wall Feeders**

Practical dry mash feeders, designed to hang on the wall.

| No. 12 Feeder, 12 inches long | Each, .50c | doz., .25.00 |
| No. 24 Feeder, 24 inches long | Each, .80c | doz., .8.00  |

**Prairie State Grit and Shell Box**

Made of heavy galvanized iron, with 3 compartments.

<table>
<thead>
<tr>
<th>Each</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>75c</td>
<td>.75</td>
</tr>
</tbody>
</table>

**Prairie State Beef Scrap and Dry Food Hopper**

Capacity, 10 pounds scrap.

<table>
<thead>
<tr>
<th>Each</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>75c</td>
<td>.75</td>
</tr>
</tbody>
</table>

**Wall Feed Pan**

Can be hung upon the wall of the house at any height desired.

Price each, .25c; doz., .2.50.

**Moe’s Grit and Shell Boxes**

Keeps the feed clean and dry. Chickens can not get into it, and can not waste the feed.

| No. 9 | Moe’s Grit Box; capacity about ¾ bushel | .1.00 |
| No. 10 | Four compartments | .1.25 |
| No. 45 | Two compartments | .45c |

**Hub Chicken Feeders**

Moe’s Feeder and Exerciser

The exercise afforded by using this device keeps your hens in prime laying condition at all times. Manufactured in three sizes:

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>51</td>
<td>Low coops (see footnote)</td>
<td>.1.35</td>
</tr>
<tr>
<td>52</td>
<td>8-qt. capacity</td>
<td>.1.65</td>
</tr>
<tr>
<td>51</td>
<td>1-bu. capacity</td>
<td>.2.75</td>
</tr>
</tbody>
</table>

*This Feeder has a bracket for attaching to side walls.

**Round Bottom Dry Food Hopper**

Dry mash and beef scrap feed readily and never clog.

Price each, .90c.

**Chick Servers**

These chick servers give out pure food and water at all times until the supply is consumed.

Price each, .25c; doz., .2.50.

**Moe’s Never Clog and Waste Proof Hopper**

This hopper does away with all trouble of feed clogging, no matter how coarse. Manufactured in 3 sizes.

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<td>35</td>
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<tr>
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<tr>
<td>37</td>
<td>36-quart</td>
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Prices on all Poultry Feeds and Appliances subject to change without notice.
CATALOGUE

DRINKING FOUNTAINS FOR POULTRY AND PIGEONS

McCullough's Sanitary Glass Chick Fountain
Best Fountain made for Chicks.
Each, 15c; 6 for 90c; Per dozen, $1.75.

McCullough's Wall Fountain
This fountain is especially serviceable for chicks.
Each, 25c; per doz., $2.50.

McCullough's Galvanized Drinking Fountains
Cones Top
These fountains are light, nonbreakable and easily cleaned.
1-qt. Each, $0.25
2-qt. Each, 35.

Moe's Fountain or Feeder to Fit Mason Jars
It will fit pint, quart or one-half gallon Mason jar.
Convenient, cheap and sanitary. Can be used for feed as well as water for little chicks. Manufactured in one size only. 6 inches in diameter.
Each, 10c; 2 for 15c; 4 for 25c.

Peerless Drinking Fountain
Easy to clean and fill and fowls can not injure their combs when drinking. Simple in construction, durable and practical.
Brooder size.................. Each, $0.50
5-quart size............... Each, 1.00
10-quart size.................. Each, 1.50

Sanitary Stoneware Fountain
The top is removable, allowing the fount to be thoroughly cleaned inside. The proper thing to use where medicine is given in the drinking water.
1-qt. Each, 40c; doz., $1.25
2-qt. Each, 50c; doz., 60.00
4-qt. Each, 60c; doz., 6.25

Drop-Bottom Fount
28-gauge galvanized steel.
Easiest thing in the world to open and clean. Clasp by which the bottom is fastened fits over the small hole under the hood, preventing slopping of water when the fount is handled. Solid brass hinge rod — no rust.
2-qt. Each, $0.50
1-gal. Each, 90.
2-gal. Each, 1.10.

The Duplex Fountain
Top section slides into bottom section.
The latest sanitary fountain on the market. This is a double fount, keeps the water clean and pure. Easy to fill. Easy to care for. Made in two sizes, 4 and 8 quarts.
4-qt. size........ Each, $1.00
8-qt. size........ Each, 1.50

MILKOLINE FOR POULTRY AND HOGS

Milkoline is pure, modified buttermilk in condensed form, to which vegetable fats, protein and acids have been added, so that it will keep indefinitely in any climate and will not mould, rot or sour. It is much more satisfactory than buttermilk because buttermilk is often of uncertain quality, due to the variation in the ripening of cream, while Milkoline is of an even, uniform acidity. Milkoline will make more pork per bushel of grain, because your hogs assimilate their food the natural way, thereby getting more nourishment from what they eat. Milkoline gives them the appetite — they eat more — grow faster. This means higher profits for you.

All poultry raisers know that milk is almost indispensable in the first two weeks of the baby chick's life. Milk means more rapid growth, less mortality and stronger, healthier chicks than any other food can produce. Poultry raisers rarely ever have sufficient milk to feed their chickens and for this reason we would like to introduce Milkoline. Milkoline Mixture cheapens the cost of production on account of its ability to make the digestive organs of the fowls assimilate all the nutrient of the food. When fed to laying hens it largely increases the egg yield.

Send for descriptive booklet giving complete information.

Being assured of its value, we are offering Milkoline at the following prices:

55 gallon barrels.................... $9.95 per gallon
40 gallon barrels.................. 1.00 per gallon
32 gallon half barrels............. 1.00 per gallon
10 gallon kegs....................... 1.25 per gallon
5 gallon kegs........................ 1.50 per gallon
1 gallon bottles..................... 2.00 per gallon

Prices on all Poultry Feeds and Appliances subject to change without notice.
CHICAGO BIRD HOUSES

Wren Houses
No. 44. Size 3½ inches wide, 6 inches deep. 5½ inches high, with 1-inch entrance. Price, each, 25c.

No. 68. For Bluebirds. Violet-green Swallows, and Tree Swallows. Size 5½ inches wide, 5½ inches deep, 8½ inches high, with 1½ inch entrance. Price, each, 50c.

No. 49. For Chickadees, Tufted Titmice. White-breasted Nut-hatches and Downy Woodpeckers. Front and upper 3-inch sides and roof, 3½-inch thick. Size 4½ inches wide, 6½ inches deep, 10½ inches high, with 1½ inch entrance. Price, each, 75c.


Martin Houses
Made from ¾-inch White Pine lumber. Stained with Green Creosote Shingle Stain.

No. 6. Has six apartments. Size 20 inches wide, 22 inches deep, 15 inches high, with 2½-inch entrance. Price, each, $3.00.

No. 10. Has ten apartments. Size 20 inches wide, 22 inches deep, 22½ inches high, with 2½-inch entrance. Price, each, $7.00.


STUCCO BIRD HOUSES

Our model huts and cabinets which we provide are appreciated by all bird lovers.

PRICE LIST

HUTS AND CABINS

Wren Hutlet. $1.00
Bluebird Hut. .75
Titmouse. .50
Bark Hut. .25
Chickadee Hut 1.50
Woodpecker and Flicker Hut. 1.75
Martin Houses. $5.00 to $50.00
Feederies, Large. $15.00 to $35.00
Feederies, Small. $1.50 to $2.00
Curved and Hewn Hut. $4.00 to $15.00
Squirrel Cabins. $4.00 to $10.00.

The Dodson Improved Sparrow Trap
The Dodson Sparrow Trap is made of tinned wire, electrically welded, strong and durable—will last for years. It has sharp, adjustable needle points projecting from the mouth of each of the two funnels, which effectively prevent any sparrows from getting out of either the front or second enclosure. Size 30 x 18 x 12 inches. Price, complete with receiving box. $7.00.

SUET BASKETS

Has a metal back, curved to fit a tree trunk or post that protects the tree from injury. Suet or beef trimmings is the best packing. Place the basket on the shady side in Summer, and the sunny side in Winter. Weight, 2 lbs. Price, each, 75c; postage extra.

PURE SEEDS FOR BIRDS

Canary Seed, re-cleaned. .25c per lb.
Rape Seed, re-cleaned. .25c per lb.
Hemp Seed, re-cleaned. .15c per lb.
Sunflower Seed, re-cleaned. .20c per lb.
Millet Seed, re-cleaned. .15c per lb.
Lettuce Seed, re-cleaned. .20c per lb.
Cuttle Bone. .10c per oz.; per lb., .90c
Bird Gravel. Package, 15c

Postage must be added if wanted by mail.
See Postal Rates, second page of cover.

MUSTARD FOR POULTRY

For many years poultry fanciers have striven for increased egg production alone, with a consequent showing by actual tests of a loss in degree of stamina and of fertility. The use of mustard has shown an actual increase in both stamina and fertility.

A teaspoonful for every six hens, mixed with the wet or dry mash, should be fed each morning. In this way one fowl will consume one-half pound of mustard in about six months. Send for booklet.

1¼ lbs., .55c; 3 lbs., 1.00; 5 lbs., 1.65; 10 lbs., 3.25; 25 lbs., 6.80.

Clipper Seed and Grain Mills

These mills are especially adapted for cleaning Grain, Clover and Timothy Seed. Descriptive circulars and prices for Hand and Power Mills sent on application.

Lack of space prevents us describing the numerous POULTRY APPLIANCES AND SUPPLIES we handle. We, however, shall be pleased to quote prices on any sort of equipment desired, also on a full line of Foods for POULTRY, PIGEONS and BIRDS.

"United States Food Administration License Number G-18737."
Bean Power Spraying Outfits

The accompanying illustration presents a view of the Bean Power Sprayer. These sprayers are made in several sizes to meet all the requirements of orchardists, whether orchards are large or small. They have proved to be economical, labor-saving and more thorough in applying insecticide than any other device on the market.

"WHY the BEAN is the BEST"

FIRST—The Bean Pressure Regulator maintains a uniform pressure; saves fuel and wear of engine; is safe and dependable; makes possible the removal of any valve in the pump while full pressure is maintained on the air chamber, and while engine is operating.

SECOND—The Bean Threadless Ball Valves (Reversible and Interchangeable Seats) may be removed without stopping engine; no threads; saves time; valves easily cleaned.

THIRD—Porcelain lined Cylinders, guaranteed to last the life of the pump.

FOURTH—Underneath suction; tanks easily emptied; engine throws more liquid with less power.

FIFTH—Only pump without stuffing box—This saves labor and trouble.

SIXTH—Bean Eccentrics increase the life of the pump and the durability of the outfit.

SEVENTH—One piece steel bedplate—makes outfit rigid, durable and light.

EIGHTH—The Bean rocking bolster; special truck reduces weight of outfit; adjustable on all kinds of ground.

NINTH—Novo Engine; simple to operate; runs under all conditions; may be removed from outfit and used for other purposes.

TENTH—Bean refillers; saves time and labor; simple to operate; one man can fill the spray tank in 5 minutes.

Besides these features the Bean equipment has many other strong points which the fruit growers should consider before purchasing an outfit.

Descriptive catalogue giving detailed information, mailed upon request.


Send for descriptive circulars giving full information.

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McCULLOUGH'S Catalogue
of-
Bulbs and Seeds
FALL 1-9-1-9

THE J. M. McCULLOUGH’S SONS CO.
H. B. McCULLOUGH, Pres’t
GEO. H. PARVIN, Vice-Pres’t

Seedsmen and Importers of BULBS

316 WALNUT STREET
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Established 1838
Just Below Fourth
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