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1899

Guide to Pansy Culture

...and...

CATALOGUE OF

Premium

American

Pansy

Seeds

GROWN BY

WILLIAM TOOLE

PANSY SPECIALIST

BARABOO, WIS.

The Wisconsin Horticulturist

DEVOTED TO THE

Horticultural Interests of Wisconsin

and adjacent States. Issued monthly under the management of the Wisconsin
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MRS. FRANKLIN JOHNSON, Editor

Baraboo, Wis.

Subscription Price 50 Cents per Annum

We offer it to our customers at the club rate of 30 cents per annum.—William
Toole, Baraboo, Wis.

From a year's experience I can heartily recommend "Nikoteen"
as an insecticide for greenhouse or window plants, when used ac-
cording to directions of manufacturers, who advertise in this Cata-
logue. Price, \$1.50 per pint, from Skabcura Dip Co., Chicago, or

WILLIAM TOOLE, Pansy Specialist, Baraboo, Wis.

Our Annual New Year's Greeting

TO CUSTOMERS OLD AND NEW.

We again wish a "Happy New Year." The past season was very favorable for a good crop of our

PREMIUM AMERICAN PANSY SEEDS,

and we offer to our customers the best that can be grown. Plants, too, we will have in season, not only pansy but also other varieties, as listed near end of catalogue. While enlarging our growth of pansy seeds we have decided to drop from the list of other seeds some varieties which are not much called for. We repeat what we say each year that our pansy seeds are all of our own growing. Express rates are lower on plants than other goods, so with our low prices for plants, customers are as well favored as if our plants were grown near to them.

We would recommend to our customers the following horticultural publications:

American Gardening, New York City.

Gardening, Moren Building, Chicago.

Wisconsin Horticulturist, Baraboo, Wis.

We are pleased to send our Guide to Pansy Culture free to those who ask for it.

Thanking kind friends for former patronage we ask a continuance of the same. Also thanks to those who recommend our seeds and plants to their friends.

WILLIAM TOOLE, Pansy Specialist.

Baraboo, Wis.

January 1, 1899.

How to Grow Pansies.

Extending as our country does through so many degrees of latitude, a wide variation of rules may be made to adapt them to different localities, and as the pansy so readily accommodates itself in many ways to the wants of its admirers there is perhaps no flower grown from seeds which may be successfully planted at so many different seasons. It is well then to consider

WHEN TO SOW PANSY SEEDS.

From southern Illinois northward, if but one sowing is made, most satisfaction may be derived from planting out of doors early in spring. These plants will bloom from midsummer until snow flies, and if properly cared for, give the earliest flowers in spring and an abundance of bloom until summer heat has drawn the branches out so long that they had better give way to younger plants.

South of the latitude above mentioned, it is better to depend on spring flowers from plants started in late summer and early fall, or from seeds planted in the greenhouse or house in January.

Pansies commence to flower in from seventy to eighty days from the time of sowing, under reasonably favorable conditions, and my customers in the extreme south and on the Pacific coast, will thus see that with fall sowing they may have a long period of flowering before summer heat commences.

In the latitude of northern Illinois and Wisconsin, seeds for plants to winter over should not be planted later than first of September. If plants are desired for winter blooming, sow late in July. Flowers can be had nearly as early from plants started in the greenhouse from middle of January to middle of February, but in the house it would be better not to plant earlier than March, for it is necessary to give the young plants room as they grow, planting out in shallow boxes before they become drawn and slender. If seeds are sown out of doors just before winter sets in, they will come up early in spring and be in flower before July. If these indoor plants are too early for planting out of doors they must be given more room as they grow, and will do better in shallow boxes holding a number of plants, than if grown in pots. In the greenhouse we plant in the benches as if they were long boxes.

SOWING SEEDS.

The same care is required in sowing pansies as for other small seeds. They must not be covered too deeply, nor be permitted to dry after they have commenced to germinate, for a dried plant is dead no matter how small it is.

Pansy seed should be sown thinly in shallow furrows not more than one-sixteenth of an inch deep, made with the sharpened edge of a piece of lath. The seed bed should be mellow and rich, leveled smooth before the seeds are sown, and after sowing the seeds should be covered evenly, and the surface pressed with a piece of board. The seed bed should be watered and shaded until the young plants are up, after which they should be gradually accustomed to full light. Shade for the seed bed may be secured by laying over some kind of frame about a foot from the ground, laths or pieces of sheeting.

As soon as the plants are up the shading must be gradually removed as there is always danger of "damping off" with any kind of small plants in close, warm and damp situations. Too high temperature in the seed bed is fatal to pansy seeds, and those planted in midsummer will not germinate strongly if the

thermometer in the shade ranges for a long time above 75 degrees. If the seeds are permitted to dry after they have sprouted, their vitality is gone. If covered too deeply they cannot come up.

Florists are in the habit of sowing pansy seed under glass which is not necessary, but will answer very well early in spring, but shading with cloth-covered frame is far better in summer, and those who have followed our advice with their August sowing have had much better success than when using hot-bed sash.

WHERE TO GROW PANSIES.

In the house or greenhouse in winter, if young plants are had just commencing to flower late in the fall, if they are not kept too hot and dry and are protected from green fly and red spider. Old plants which have done service in the garden are not suitable for winter blooming. Several plants in a box are better than if grown in earthen pots. On the balcony, porch or window sill in summer, if not directly facing the south. Grown in this way no plant better repays the care given. In the garden anywhere, if not in too hot a place, directly facing the south; nor where they must struggle with larger plants and trees for nourishment.

GENERAL MANAGEMENT.

The plants which have flowered in the spring will do well again in the fall if the long branches are cut back late in June.

The ability of the pansy to stand hot weather depends greatly on its treatment. If the soil is rich enough, and not too dry, nor in too hot a situation, pansies, with frequent cultivation, will stand a long siege of hot weather, if no seeds are allowed to form. With this care, one can have pansies from young plants in midsummer. A rich, sandy loam is best for pansies, and if not too stiff, a clay soil is better than that which is very sandy. But whatever its texture, the soil should be made rich with well-rotted manure, thoroughly incorporated with the soil, and stirred several times while the plants are in the seed bed. This thorough preparation of the soil before transplanting is very important.

Well-rotted manure, if to be had, is preferable to commercial fertilizers, and many who think they can not have a supply, might provide some by making a compost heap as if for a hot-bed, a heap of manure covered with soil only being necessary. After heating and watering for some time the whole mass, including the soil, should be mixed and piled again, any supply of hen manure on hand being included. In this way a good supply may be provided without the offensiveness of the ordinary manure heap.

Transplant after the plants have attained the fourth or fifth leaf and before they have become drawn and slender with crowding. An eastern or northern slope is preferable. My own experience does not permit me to favor shade, although shade is preferable to too much heat, and shade of trees is more objectionable than shade of buildings. Temporary shade during the hottest portion of the day in extremely warm weather would be an advantage, but shade the whole season through will not admit the brightest colors, or an abundance of flowers.

If watering is necessary and possible the ground should be well soaked in the evening and thoroughly stirred, about two inches deep, next morning, as soon as the soil is dry enough.

Cultivation without watering, is better than watering without cultivation.

Keep the buds picked off after transplanting until the plants are well established, and also during very hot weather, for a good display of flowers in the fall.

When growing where they are to stay, about eight inches to a foot square of space should be allowed each plant. Frequent stirring of the soil is necessary between the plants until they are too large.

A crust should never be permitted to form on the surface. Frequent cultivation is, more than anything else, the secret of success in pansy growing.

WINTER PROTECTION.

The plants which have flowered through the summer and fall will usually winter over well if protected with a light covering of leaves or straw, which is better if a little brush has been placed over the plants first.

Young plants are quite hardy if protected from sharp winds, and not allowed to become too wet near the surface of the ground. In cold frames a considerable mixture of sand is desirable, as the plants, with protection, winter better in sandy than in clay soil. The young plants should be transplanted from the seed-bed to winter quarters early enough to become well rooted before winter sets in.

Boards may be used instead of glass for cold frame covering; glass should be shaded if too warm, as it is desirable to keep the plants dormant, and they should be watered, if necessary, as the roots will sometimes freeze dry if not looked after.

A good way to protect pansy and other plants is to have a V trough of narrow boards to cover the plants with, and then throw on some coarse litter of leaves, straw, manure or shavings. In all cases thorough surface drainage must be provided to prevent water from accumulating about the plants and forming ice about them.

PANSY PESTS.

Pansies, like many other flower plants, in hot, dry weather, are liable to be injured by the so-called "Red Spider," a minute insect which attacks the under surface of the leaves of many garden and field plants, causing them to wither, as if from dryness. Spraying of water from a garden pump directed forcibly against the plants will reach the under side of the leaves and destroy the insects. The addition of pyrethrum powder, or else kerosene emulsion to the water makes the remedy still more effective.

As the red spider flourishes best in a dry atmosphere, it is often the case that plants in the shade of trees suffer because heavy dews are kept from the plants by the trees. Aphis or plant lice cause more injury in gardens than people are generally aware of. Apply, in any way to wet the plant lice, a solution of one teaspoon of Nikoteen to two quarts of water. The same may be used on house or other plants troubled with scale or shell louse, mealy bug or red spider. Also for vermin in the hen house or on animals.

VARIETIES OF PANSY SEEDS AND PRICES.

In the following list I continue the simple classification heretofore followed, which is briefly descriptive of kinds. Some kinds are so nearly like others it seems scarcely worth while to list them separately. Fire dragon is included with Fiery purple and can be furnished separate if desired. Bismarck is so nearly like Havana brown it seems scarcely worth while to call it a separate class. Brunhilde is listed, yet is much after style of Marbled dark, differing in the brownish-purple shading. Quadricolor is of same style as Gloriosa Perfecta with different shading.

Our old customers each year recognize increased and changing variety in the markings. With careful selection and persistent rejection of anything not up to our standard of excellence we attain to the highest grade in quality. No variety of flower responds more readily to good care than does the pansy, and none are more sensitive to neglect or careless treatment. For that reason it is possible for the best strain of seed to not show its full beauty because not given a chance.

Please give ours a chance to show what they can do.

No.		PRICE.
1	Deep Blue—varying from bright to very dark blue.....	\$0.10
2	Blue Black Shaded—black in center, changing outward to shades of blue.....	10
3	Light Blue—delicate shades of light blue or lavender	15
4	Nos. 1, 2, and 3 mixed	10
5	Uncle Tom—my own strain—the deepest black of pansies	15
6	Black—violet center	15
7	Black—bronze center	15
8	Nos. 5, 6, and 7 mixed.....	15
9	Havana Brown—attractive shades of light brown, old gold, etc....	15
10	Velvet Brown—very rich and velvet dark brown shades	15
11	Brown and Bronze—dark mahogany shades with bronze center....	15
12	Bronze—varying from light bronze to copper hue	15
13	Nos. 9, 10, 11, and 12 with other shades of brown; mixed.....	15
14	Fancy Red—reddish shades of purple from rosy to almost crimson. This variety, originating with myself, is in all respects the best red pansy.....	15
15	Rose—a new variety of my own and quite distinct from any other, with light shades of pink to deep rose, and carmine purple, with rich, velvety centers and frilled edges.....	15
16	Cardinal—more nearly scarlet than any other variety.....	15
17	Rubra—flowers a little smaller than others, but of attractive reddish shades.....	15
18	Victoria—a beautiful variety of the red flowered class. Flowers medium size.....	15
19	Purple Mantle—deep maroon to reddish shades of purple with light tinge near the edge of petals	15
20	Velvet purple—rich, dark shades of royal and violet purple	15
21	Mixtures of Nos. 14 to 20 mixed.....	15
	Marbled—beautiful combination of colors on white or yellow ground:	
22	Marbled White Ground	10
23	Marbled Yellow Ground.....	10
24	Marbled colored, upper petals edged with white, lower petals marked with yellow.....	10
25	Marbled dark	10
26	Marble mixed.....	10
27	Brunhilde, or Gypsy Queen—unique in shading, a brunette among pansies	15
28	Fiery Purple—velvety scarlet purple shades	15
29	Fire King—after style of preceding, with more yellow.	15
30	Mixture—22 to 29 inclusive.....	15
31	Rosy Lilac—flowers varying from pale lilac to darker shades ..	10
32	Striped Bronze Ground.....	10
33	Striped Lilac Ground	10
34	Striped Mixed—flowers beautifully and curiously marked, with lilac, bronze and yellow on purple.....	10
35	Nos. 28 to 33 mixed.....	10
36	Snow Queen—pure white with characteristic yellow dot in center of flower, sometimes marked near center with faint blue or purple lines	10
37	White Penciled—much like Snow Queen with blue or purple lines near center of flowers	10
38	White, Large Center.....	10
39	White Blue Edge.....	10
40	Nos. 36 to 39 inclusive.....	10

	Odier or Five Spotted.—While other pansies have center markings only on three lower petals these marks are shown on all petals in this variety:	
44	Odier Mixed	15
	Large Spotted—very large, rich center marking in great variety:	
45	Large Spotted White Ground.....	15
46	Large Spotted Yellow Ground.....	15
47	Large Spotted Red Ground	15
48	Large Spotted Mixed.....	15
49	Cassier or Giant Odier—More after style of Large Spotted than Odier, but an interesting new variety.....	15
50	Mixture of Odier, Large Spotted and Cassier.....	15
51	Emperor William—blue with large dark center.....	15
52	Lord Beaconsfield—dark purple, shading to lavender.....	15
53	Wm. Penn—a new variety, light drab, shading to brown or pearly gray.....	15
54	Nos. 51 to 53 mixed.....	15
55	Gloriosa Perfecta or Rainbow—beautiful markings with rich steel blue shading over the colors. Some with white, others with white and crimson edges.....	15
56	Peacock, a beautiful variety	15
57	Black with crimson and yellow edge—Emperor Frederic	15
58	Black with crimson and white edge.....	15
59	The two preceding are very beautiful and striking. Both varieties mixed	15
60	Silver Edge—Violet with pure white edging.....	15
61	Purple White Edge—much after the style of Silver Edge, but quite distinct	15
62	Nos. 55 to 61. Fancy bordered varieties mixed	15
63	Deep yellow—no yellow flower grown is more attractive than the yellow pansy.....	15
64	Pale Yellow—delicate canary color.....	15
65	Yellow, large center.....	15
66	Sunshine or Goldelsie. Some pure yellow without other markings, while on a few plants the flowers are penciled with lines of black or brown near the center	15
67	Yellow blue edge	15
68	The preceding yellow varieties with No. 73 mixed	15
69	Blue shaded with brown—interesting colors.....	15
70	Veined—marking curious and beautiful.....	15
71	Blue with white border.....	15
72	The three preceding varieties mixed.....	15
	Giant Trimardeau. The flowers of this class average larger than any other. The colors and markings are various. Very noticeable.	
73	" Yellow. Flowers very large, bright yellow, with black or brown velvety centers	15
74	" Purple	15
75	" Beaconsfield	15
76	" Emperor	15
77	" Blue	15
78	" Black	15
79	" White.....	15
80	" Brown, bronze center.....	15
81	" Auricula, bronzy lilac	15
82	" Striped.....	15
84	Trimardeau mixed. The preceding and other giant varieties mixed	15

- 85 Extra choice mixed. This is my premium collection mixed.
 86 Selected mixed, selected from plants typical of their respective classes.
 87 Hesperian Pansies. A selection of the most beautiful varieties noticeable for large size and perfection of form and coloring intended for those who wish to grow a few of the very best; in pkg. and trade pkg. only; pkg., 25c.; trade pkg., 50c.; 3 trade pkts, \$1.00.

Extra choice mixed pkt. 10c.; trade pkt., 20c; $\frac{1}{8}$ oz. 50c.; $\frac{1}{4}$ oz., 75c; 1 oz. \$2.75.

Selected mixed pkts. 15c; trade pkts., 30c; $\frac{1}{8}$ oz., 70c; $\frac{1}{4}$ 2z., \$1.20; 1 oz., \$4.00.

Trade pkts. contain about 1,000 seeds; $\frac{1}{2}$ oz. at oz. rates. For 50c. order pkts. to value of 60c.

For \$1.00 order pkts. to amount of \$1.25; for \$2.00 order to amount of \$2.60; for \$3.00 order to amount of \$4.00.

The above premium applies to seeds in pkts., but not to trade pkts., or seeds by weight.

The same premium is allowed for other seeds as for pansy seeds.

PANSY PLANTS.

My trade in pansy plants is now very extensive with both amateurs and dealers. Orders will be filled promptly as early as spring opens.

Plants sent to all parts of the country, whether by express or mail, have been reported received in splendid order.

The plants when received, whether by express or mail, should be taken to the cellar, or some other cool place, and unpacked at once. The roots should then be sprinkled with water and covered with fresh soil, planting them out in the evening or early in the morning. The bed should have been prepared some time previously, the surface being stirred frequently. The plants, with watering and shading may then be safely planted even in dry weather.

Plants delivered at express office here well packed to go long distances.

In bud or blossom, from selected seed, 50 plants, \$1.00; 100 plants, \$1.60; 1,000 plants, \$15.00; 500 plants at 1,000 plant rates. Plants once transplanted, by mail, postpaid, 25 cents per dozen. Pansy plants for the south ready after September 1st, from seed bed or once transplanted, by mail, postpaid, \$1.60 per hundred. Larger plants by express in fall at same prices, not prepaid.

Not less than one dozen plants by mail. If less than \$1.00 worth of plants are ordered by express five cents must be added to remittance for basket.

The above prices are for mixed varieties, but if many plants of any one variety are ordered, ten per cent. will be added to the regular prices of such plants.

There is an advantage in club orders if sent to one person, not only by lower rates for plants, but also through proportionately less express charges if all are consigned to one person. Express rates on plants are lower than general rates.

In club orders each person's collection will be marked separately, and some extras sent to the person making up the order.

For list of other plants see end of catalogue.

Extra premium to those who wish it. On all orders for seeds or plants amounting to five dollars or upwards the *Wisconsin Horticulturist* if this offer is mentioned with the order.

Other Flower Seeds.

SOME DIRECTIONS FOR CULTURE.

Nearly all flowering plants bear transplanting, thus giving opportunity to care for starting seeds much better than can be done in the open garden. A bed three feet eight inches wide and any length desired, should be made and enclosed with a six inch board on the south side, and one twelve inches wide at the back or north side.

Cover with square frames of lath four feet long and three feet wide, to which are tacked pieces of a light quality of unbleached sheeting. Under the shade of these covers we can secure the right degree of moisture to insure germination and after plants are up they can be gradually accustomed to full sunshine, but be very careful about removing covers when the air is very drying. Very small seeds may be started in boxes covered with panes of glass, and all then placed under the covers.

ASTERS.

The same directions given for care of pansies in seed bed will apply to asters, except that the latter may be covered a little deeper. Seeds may be sown from the time frost leaves the ground until late in May. Plants started in May will be ready for the fall fairs. Make the soil into which they are transplanted rich, stir the surface frequently and mulch before they begin to bud.

Asters, when in bloom, should not suffer for want of water. They are fine, grown in pots for decorative purposes. When the plants are in full bloom out of doors they may be lifted with some soil about the roots and placed in a bowl or tumbler of water with a little moss in the bottom. They will thus keep in condition longer if removed to the house for decoration than they would if exposed to the weather in the garden.

With so much need for white flowers none are more useful than white asters. These, with the lighter shades of purple, blue and rose or pink, are very much used for decorative work. A choice selection of these colors, in the best varieties has been chosen for customers.

105	Pæonia Flowered Perfection. Flowers large, globular, free blooming, and in great variety of shades	10
106	Pæonia Flowered, white.....	10
107	Rose Aster. Flowers medium large, in great variety of colors, very double and free blooming, durable and satisfactory for decorative purposes.....	10
108	Rose Aster, white.....	10
109	Rose Aster, light carmine.....	10
110	Rose Aster, light violet.....	10
111	Rose Aster, scarlet, the brightest colored aster; very showy.....	10
112	Washington, Aster of the Rose and Victoria class, having probably the largest flowers of any aster, mixed colors.....	10
113	Washington Aster, white.....	10
114	Goliath Aster, flowers very large and showy, with long stems.....	10
116	The preceding tall varieties mixed.. ..	10

HALF-TALL VARIETIES.

119	Comet. A new variety attracting much attention because of resemblance to Japanese Chrysanthemums, colors mixed, shades of bright pink, light rose, lilac and white striped.....	10
120	Queen of the Hall. A new variety, half tall and earliest of all the asters, flowers of medium size on long, slender stems, mixed....	10
121	Diamond. The flowers of this variety are the largest of the pompon class, very regular in form, rivaling the dahlia in symmetry, mixed collors.....	10
122	Diamond, white.....	10
123	Diamond, light blue.....	10
124	Diamond, rose color.....	10
125	Pearl. Flowers also of the pompon class, very freely blooming and desirable, a most durable variety, mixed colors.....	10
126	Pearl, white.....	10
127	Pearl, rose.....	10
128	Pearl, light blue.....	10
130	Meteor. Flowers in variety of colors, plants branching very full of flowers and showy.....	10
131	Victoria. Flowers of good size and variety, free blooming and desirable mixed colors.....	10
134	Mignon. Pure white, a new variety with soft petals, very free blooming and desirable to fill in designs or other decoration work	10
135	Comet, white.....	10
136	Half-tall varieties, mixed.....	10

DWARF VARIETIES.

137	Dwarf Chrysanthemum, Flowered. Plants dwarf, branching free blooming.....	10
139	Shakespeare. Plants low growing, branching and covered with very small double flowers.....	10
140	Pæonia Flowered Dwarf Bouquet. More erect in style of growth than preceding dwarf varieties. Plants one mass of flowers, almost completely hiding the foliage.....	10
143	Dwarf Queen, mixed.....	10
144	Dwarf varieties, mixed.....	10

OTHER MIXTURES.

To accommodate the large demand for asters for decorative work we offer for florists' use a mixture of best white with light blue and pink, or carmine shades as:

146	Florists' Mixed.....	10
	And for the same uses we offer a mixture of the best white varieties	
147	Mixed Whites.....	10
148	All varieties and classes of asters mixed.....	10
	Trade pkgs. containing triple quantity at double price, of the following numbers, 116, 136, 144, 145, 146, 147, 148.	

AGERATUM.

Plants susceptible to frost but otherwise easily grown. Flowers in clusters. Free and continuous bloomers.

The dwarf varieties are fine for house plants.

155	Imperial Dwarf White.....	\$0.05
156	Imperial Dwarf Blue.....	05

ALYSSUM.

Flowers white, small, numerous and sweet scented, valuable for ribbon beds or where masses of white are wanted; blooms early and late.

160	Common, best for cutting	\$0.05
161	Dwarf, best for edgings.....	05

ANTIRRHINUM.

165	Or Snap Dragon—Dwarf, easily grown from seeds and very desirable for bouquets or in the garden; mixed colors.....	05

COREOPSIS.

169	Drummond's golden wave, clear, bright yellow.....	05
171	Dwarf varieties mixed	05

COSMOS.

Tall branching plants with great abundance of flowers late in the season, like single dahlias on long slender stems, in great variety of shades from white through pink and crimson to dark purple and maroon. Much used by florists late in the season. Often so late is better to grow in pots like Chrysanthemums

177	Mixed Colors	10

DIANTHUS.

Free and continuous bloomers from pure white, through rose, carmine, crimson and brightest red, to almost black; the Japan Pinks commend themselves to every one.

180	Chinensis Heddewiggi—Double mixed colors.....	\$0.10
182	Laciniatus—Double fringed, mixed.....	10
184	Diadematus—Diadem Pink.....	10
185	The preceding varieties mixed	10
187	Marguerite Carnations. These if sown early will blossom the same season. They are very free bloomers and more than three-fourths come double from seed, being in as great variety of colors and fragrant as the common carnations. Pkt. 10c; trade pkt., 20c.	

GAILARDIA, OR BLANKET FLOWER.

190	Gailardia Lorenziana—Double mixed, splendid plants for bedding or bouquets, easily grown, flowers large and continuous bloomers, until late in autumn. Colors, yellow, claret, maroon, brown, crimson and yellow, etc	\$0.05

IPOMEA.

195	Ipomea Purpurea, Morning Glory, ten colors mixed.....	05

LARKSPUR.

The flowers of both annual and perennial varieties are fine for cutting, and showy in the garden; perfectly hardy and of easy culture. The perennial variety will bloom the first season, and for many years after. There is no blue flower brighter than are some of the Chinese Larkspur.

201	Chinese perennial, white or bright blue; either color separate.....	05
202	Chinese in many shades of white, blue, purple mixed	05

SWEET PEAS.

206	Emily Henderson, large, pure white.....	05
207	Blanche Burpee, of the choicest whites.....	10
208	Blushing Beauty, delicate pink.....	05
209	Mrs. Gladstone, rosy pink, blush wings.....	10
210	Firefly, glowing scarlet	05

211	Mars, bright crimson.....	10
212	Butterfly, white-edged lavender.....	05
213	Monarch, crimson, maroon wings, purple.....	05
214	Blanche Ferry, pink and white, early.....	05
215	Mrs. Joseph Chamberlain, white stripe, pink.....	10
216	Captain of Blues.....	05
217	Lottie Ecford, white-edged, blue.....	05

NASTURTIUMS, DWARF.

223	Lady Bird, yellow, spotted scarlet.....	05
224	Pupureum, crimson.....	05
225	Pearl, creamy white ..	05
226	Rose	05
227	King of Tom Thumbs, scarlet.....	05
228	Golden King, bright yellow.....	05
229	Dwarf varieties, mixed.....	05

NASTURTIUMS, TALL.

230	Crimson.....	05
231	Yellow	05
232	Rose	05
233	Scarlet	05
234	Orange.....	05
235	King Theodore, very dark red.....	05
236	Many tall varieties mixed	05

PETUNIA HYBRIDA, GRANDIFLORA.

This class of flowers is so well known that they need no special description. Seeds should be sown in boxes sprinkled on the surface of the soil and pressed in. They should be carefully watered and shaded with a pane of glass, muslin or paper, or they may be covered with a woolen cloth laid directly on them, the watering being allowed to soak through the covering. As soon as the seeds have sprouted remove the cloth, but do not let the plants dry out or keep them so close as to cause damping off. The fringed petunias are very attractive and are admired even by those who have not cared for petunias until seeing these beautiful varieties. Some flowers of the Superbissima class were five inches across in various colors, with black, white and yellow throats and frilled edges.

241	Fringed Alba, white	\$0.15
242	Fringed Maculata, or spotted	15
244	Fringed Kermesina, rich crimson maroon.....	15
245	Fringed Mixed	15
247	Superbissima Alba, white, 100 seeds.....	15
252	Superbissima, many varieties mixed.....	15
253	Fringed and Superbissima mixed.....	15

PHLOX DRUMMONDII.

One of the most showy and free blooming annuals. Seeds may be sown early with about the same care as for Asters, but like Petunias, the soil need not be so rich.

The Grandiflora varieties are strong growing with large flowers.

The Hortensifloras are compact, bushy growers, with flowers larger than the common varieties.

260	All colors mixed.....	\$0.05
261	Meteor, bright scarlet.....	05
262	White	05
263	Hortensiflora, white	05
264	Hortensiflora, rose.....	05
265	Hortensiflora, mixed	05

266	Grandiflora, mixed	05
267	Grandiflora, white	05
268	Grandiflora, Splendens, bright crimson with white center	10
269	Star of Quedlinburg, each petal has a long point in variety of colors and very pretty	05
270	Fringed. These have fringed edges, mixed colors	05
271	Star and Fringed, mixed	05

RESEDA ODORATA, OR MIGNONETTE.

For fragrance and free blooming qualities the three following varieties are offered as the best:

272	Parson's white	\$0.05
273	Miles Spiral, long spikes	05
274	Matchet, dense compact growth	10
275	Mixed varieties	05

STOCKS.

For fragrance and beauty combined, the ten-weeks stocks are much esteemed. They should be started early in window or hot bed, but they will bloom in good season if sown as recommended for pansies. A light, rich soil suits them best. Stocks, Alyssum and other plants belonging to the cabbage family suffer from attacks of the flea beetle. The plants should be dusted with a mixture of one part pyrethrum powder to forty parts land plaster. Coal ashes or dry road dust may be substituted for plaster. The Californian grown pyrethrum called Buhach is the best.

276	Large flowered, tall, ten weeks, mixed	\$0.10
277	Large flowered, dwarf, pyramidal, ten weeks, mixed	10
278	Perpetual flowering, white	10

VERBENA HYBRIDA.

Seedling Verbenas are more free blooming and fragrant than those from cuttings, and if seeds are sown in the house, may be had in bloom as early as desirable for our season. They come reasonably true to color from seeds.

284	Mammoth mixed	\$0.10
285	Grandiflora Auricula, flowered, mixed colors, with white eye	10
290	Candidissima, pure white	10
291	Defiance, brilliant scarlet.	10
292	Deep Blue, with white eye	10
293	Scarlet, with white eye	10

Plant Department.

The selection of varieties for our plant list has been made with reference to their fitness for out-door growing, window boxes in summer, veranda boxes, and vases without regard to their usefulness as winter houseplants also. We find that many things which formerly were classed only as greenhouse plants are fine for summer growth, either outside of the window, in the garden, or as climbers by the porch. For a summer climber there is nothing finer than *Cobea Scandens*.

SEEDLING PLANTS IN VARIETY.

In this department we seem to supply a long felt want, and have been surprised at the great demand for seedling plants for bedding purposes. Many do not care to trouble with seed sowing, others order a few to fill vacancies, or of such varieties as they cannot start early.

These plants are all much earlier than can be started out of doors. We have increased our facilities for growing and hardening off the plants, and our large mail and express trade is steadily increasing.

Seedling *Verbenas* are healthier, more fragrant and free blooming than those from cuttings. Prices as follows:

Asters, in white, pink, light blue, bright red, deep purple, each color separate or in any variety in mixture as listed among such seeds, per doz.	\$0.15
<i>Ageratum</i> dwarf, <i>Alyssum</i> , <i>Phlox Drummondii</i> , Japan Pink, Snap Dragon, Parsley—moss-curved—per doz.	15
Chinese Larkspur, hardy perennial, blooming the first season, white, blue or mixed, per doz.	15
<i>Chrysanthemum Inodorum</i> , a hardy perennial, blooming the first season with feathery foliage and double white flowers after style of double feverfew but more graceful, a few plants come single or semi-double, per doz.	25
<i>Nasturtiums</i> , dwarf or tall, mixed colors only, per doz.	25
Ten Weeks stocks, white, crimson or mixed, per doz.	25
<i>Petunia</i> , fringed or <i>superbissima</i> , or both varieties mixed, per doz.	25
<i>Petunia</i> , double from seed, not more than 20 per cent., come double, per doz.	25
<i>Salvia Splendens</i> , 5c each, per doz.	50
<i>Cobea Scandens</i> , a rapid growing hardy climber, with large showy flowers, blue, 5c each, per doz.	50
<i>Verbenas</i> , in separate colors or varieties, only as described in seed list, per doz.	25
English Daisies, white or pink, per doz.	25
Marguerite Carnations. This new class of carnations has proved very satisfactory, blooming as they do the first season from seed, they are more thrifty and free than the old style florists' carnations and equally fragrant. A large percentage came double and some of the most choice can be potted for blooming in the house, per doz.	30
<i>Cosmos</i> . The early variety, per doz.	30

Plants from Cuttings.

These are necessarily dearer than plants from seed because much room is taken up in the greenhouse with stock plants of the varieties to be propagated, but if we would be sure of varieties many kinds must be increased in this way.

	Each.	Doz.
Double Alyssum, new giant. This is a stronger grower than the old kind and better for cutting purposes; graceful drooping plants	5c.	50c.
Feverfew, double white	5c.	50c.
Forget-Me-Not, <i>Heavenly blue</i> ; perfectly hardy in winter but easily lost in summer if neglected.	5c.	50c.
Pineapple Salvia— <i>Salvia rutilans</i> . The leaves of this salvia have a strong pineapple fragrance. Plants may be grown in pots, or potted in late summer for winter blooming. The long spikes of crimson flowers are very showy.	5c.	50c.
Paris Daisy—White with yellow center, a new large flowered variety more free blooming than the old kind.	5c.	50c.
Pans Daisy—Golden Beauty. Equal to the white in size and freedom of bloom; a clear pure yellow. New.	5c.	50c.
Petunia Double—Snow Drift, white; Pink Beauty, lovely pink; Aurora, crimson; Argus, crimson and white; Elfreda, carmine, rose and white, 10c. each; 3 for 25c.		

Heliotrope—We have tested many varieties the past season and find some of the older varieties the most free bloomers, but some of the new kinds have special qualities to recommend them. Some kinds are different only in name, so were rejected. We offer the following as the best: Queen of Violets, very dark with white eye; Florence Nightingale and Jersey Beauty, medium shade and very free bloomers; White Lady, nearest approach to white, good grower, free bloomer; Albert Deleaux, variegated foliage, medium color of flowers; Picciola, tall strong grower with good sized trusses of flowers, more nearly red than any other variety, 10c. each; 3 for 25c.

Geranium, Rose Scented are fine for summer use if grown in the garden, and like Heliotrope should be in every outdoor collection. Either skeleton leaved or common; 10c. each; three for 25c.

Lemon-scented, rare and delightfully fragrant, 10c. each; three for 25c.

Mexican Primrose. These plants bloom profusely in the summer and are fine for window boxes or in the garden; 5c. each; doz. 50c.

Solanum Jasminoides. A beautiful summer climber for the porch or in window boxes; 10c. each; three for 25c.

Cuphea Platycentia—*Cigar Flower*. Always in bloom winter or summer and pretty in a window box collection; 5c. each; doz. 50c.

Poet's Ivy. This form of English ivy has smaller leaves than the common variety and is very pretty and graceful; 10c. each; three for 25c.

Hanging Basket Fern—*Nephrolepis Exaltata*. We have had wonderful success with this fern grown in a hanging basket built of sticks, log cabin fashion, and lined with sphagnum moss or any thing to keep the soil from sifting through. Young plants from the old one grow through the sides, and the fronds three to four feet long on large plants are always admired. Leaf mould, with a little well rotted manure, suits them best. Our common white cedar fence posts are easily cut and split into suitable pieces for building plant baskets.

Ours is the drooping variety with long, arching, drooping fronds. Some eastern growers are calling this the "Boston Fern." Plants, 15c. each; small plants, 10c; large plants, 20c.

Umbrella Plant—*Cyperus Alternifolius*. These favorite plants are easily grown in pots, as aquatics, or in the garden; they like plenty of moisture; thrifty young plants 5c. each; larger plants 10c.

Strawberry Geranium—*Saxifraga sarmentosa*—easily grown and a beautiful basket plant; 5c. each; six for 25c.

Geraniums—Our local trade requires Geraniums in considerable quantity and variety. Outside customers often call for them so we catalogue them. We have in stock thirty-two of the best varieties, mostly double, including the following:

Double Whites Bride Bouquet, Alpine Beauty, Ayne Chevalier, La Favorite, Bruant, bright scarlet; Mabel, brilliant dark scarlet; John Doyle, bright vermilion; S. A. Nutt and Leonard Kelway, very dark vermilion; Professor Poiriant, crimson, purple and scarlet.

Of pinks, Salmon's flesh color, apple bloom, etc., we have Beauty of Poitvine, Queen of Fairies, M. Jovis, Madam Dubouche, Madam Gilbert, M. Cara, and others. Also choice single varieties. 10c. each; 3 for 25c; 13 for \$1.00.

GLADIOLUS BULBS.

We have a fine collection of gladiolus in splendid mixture of shades. Per 12, 40c.; per 35, \$1.00. Postage paid. By express 30c. per doz. 45 for \$1.00.

GENERAL REMARKS.

Read what is said about care of pansy plants when received by mail or express. The same remarks apply to other plants also.

Express rates on plants are now so reasonable it is much better to have plants come that way than by mail. Larger plants can be sent by express easier than by mail and we can afford to be more generous with extras on express orders. We do not fill plant orders of less than 25c. by mail, or less than \$1.00 by express. A dozen may consist of more than one kind of plant at same price. In club orders each one's lot is marked separate and liberal extras given to the one making up the club.

Of miscellaneous plants at dozen rates, select for each dollar to value \$1.10; of 10c. plants, select 13 for \$1.00 or 28 for \$2.00.

We warrant to fill all orders received. If seeds or plants fail to reach you in due season, let us know at once. Money at our risk if you send express order, post office order or bank draft on Chicago, Milwaukee, St. Paul or Minneapolis banks, or any of the large cities. Please do not send your personal checks. Banks refuse them. Small amounts in silver have so far proved safe. Stamps if sent should not be of larger than two cent denomination, one cent stamps preferred. Letters containing bank bills should be registered. Express orders preferred. Make orders plain and separate from correspondence.

And don't forget to sign your name. Send all orders to

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The Gladiolus to-day is unquestionably the most desirable and popular flower for summer blooming or cut flowers. The diversity and multiplicity of brilliant colorings, embracing every conceivable shade, from immaculate white to darkest maroon.

The indescribably beautiful and dazzling sight of our many acres of gladioli when in bloom is certainly a wonderful sight to behold.

Our stocks are very critically selected, thus having the very best possible to produce.

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with the names of some of your friends who grow Flowers, Bulbs, and Plants, we will send you 12 very choice Gladioli bulbs, or 3 choice mixed French Cannas, or 1 Giant Canna Italia, or 4 Giant Tuberose Bulbs, or 1 Gold Band Lily, or 1 large Caladium, or 1 choice Spotted Calla, or 2 fine Giant Gloxinia, or 2 Tuberous Begonia, by mail, postpaid.

This is the cheapest and best bargain ever offered, made to introduce our choice bulbs to new customers, and includes free copy of our catalogue containing other

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Our fall list, ready in September, contains a choice list of Tulips, Narcissi, Hyacinths, Strawberry Plants, etc., for fall planting.

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