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62,23 LIBRAE Gro. g. Ball
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Above-Indianapolis White and Masterpiece.

# BALL Mums Carnations for 1948

Geo. J. Ball, Inc., West Chicago, Ill.

## 1948 Novelties

#### CONSTELLATION

Yellow Decorative-Matures November 5

The two outstanding features of this variety are its uniformity in response to black cloth shading and its dependability as a high producer of quality flowers. Constellation has consistently yielded as high as the most productive of the commercial varieties. With the use of light and shade we recommend this variety for flowering from May 5 to November 15.

#### **SENECA**

#### Orange Bronze Decorative—Matures November 1

The earliest bronze pompon in the cloth house shading program. It holds its color well. It is a better producer than Navaho. It is the most reliable bronze pompon for early shading.

#### TALLY-HO

#### Yellow Intermediate Pompon—Matures November 15

A quality pompon. It is very similar in many respects to the variety Princeton and complements this variety in being a clear yellow and well-rounded hard pompon.

#### YELLOW QUEEN

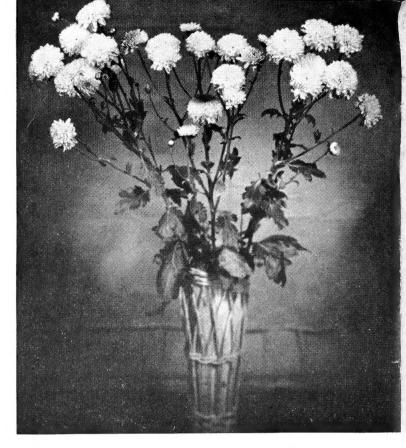
#### Yellow Sport of Orchid Queen-Matures November 10

Highly recommended for natural flowering and delayed flowering into Thanksgiving season by the use of artificial light.

#### SPELLBOUND

#### Lavender Pink Decorative—Matures September 25

A striking 3 inch decorative that combines the beauty and grace of Lavender Lady with the durability and substance of Jean Treadway. Spellbound captivates the eye with its gloss and finish derived from Burgundy. The plant is a solid, compact bush attaining a height of 24 inches. The characteristic, uniformly planed flower development contributes to a wonderfully showy mass effect that cannot fail to greatly enhance the early fall garden. The habit of growth is equally ideal for pot plant culture.



Tally-Ho.

#### **SERENITY**

#### White Daisy-Matures September 25

The major requirements of a good garden chrysanthemum are early, showy, flowers borne on rigid compact, bushy plants. A degree of resistance to frost winter kill, insects and diseases is equally desirable. Serenity combines all of these qualities plus a uniformity of growth and flowering seldom exceeded by an outdoor chrysanthemum. It is a beautiful creamy white, heavily petalled daisy that opens rapidly to a real show of literally hundreds of blooms.

As a pot plant, it resembles the bushy, compactness of Judith Anderson and Pomponette. The shapely plant, because of its strength and rigidity makes a beautiful border or low hedge.

#### HONEYCOMB

#### Yellow Pompon-Matures September 25

A small perfectly formed pompon of intense golden yellow. The flowers are born on well formed sprays, nearly ideal for cut flowers of medium 18-22" stems.

Honeycomb is a marked advance over the widely grown and well known Early Yellow and Pomponette in that the habit of growth is more vigorous and productive, the flowering season is equally early and the quality and color of the flower is such as to closely rival many greenhouse grown counterparts.

Honeycomb will shape up to a fine pot plant or add a distinctive note of formality and rich color to the fall garden scene.



BETTER MUMS Gro. J. Ball

## FOR FLORISTS



# Our Mum Cuttings for '48

Thru shading and lighting, Mums are and will continue to increase in value. Also, we must improve their vitality. To this end we must not only take better care of our young stock, but encourage the hybridists to grow seedlings. They not only improve the flowers, but new varieties or seedlings increase that all important vigor and vitality. In other words, new varieties put life into the Mum business. We feel that better and more care of propagating stock must be practiced if quality and resistance are to be improved or maintained.

The cause and control of the crippling new infection known as "Stunt" is not yet definitely known; with our leading pathologists studying it, control measures will be found. (Turn to our December GROWER TALKS, page 1, and to page 8 this catalog for details.) Meantime, as producers and suppliers of rooted Mum cuttings, we have arranged to furnish them (in good faith, but without guarantee) from plants that have shown no trace of stunt or any other infection. But, to do so it will be necessary to draw on supplies from various sources. This will involve some delays and some substitutions might be necessary, too.

You can depend on us to do our utmost, sparing no cost, to maintain our position in the world of Chrysanthemums. All shipments will start about April 1st.

## New Varieties — 70 Us

The following varieties are quite extensively grown in one or more of the larger Mum markets of the country but have either never been offered before by us or have been dropped. There are some very excellent varieties in this list—both for shading and otherwise. All these varieties appear in our general list that follows:

#### YELLOW CHIEF and WHITE CHIEF

Both sports of Pink Chief. Very good for early shading. Mature October 15 naturally. Price \$42.50 per 1000.

#### RAYONNANTE

A pink spider variety maturing November 5. Price \$45.00 per 1000.

#### DISTINCTION

An old timer listed as a standard Thanksgiving Pink Mum in our first cutting catalog in 1935. Price \$42.50 per

#### BRISTOLITE and YELLOW BRISTOLITE

Large button Pompons for Thanksgiving. Bristolite has been a standard orange bronze for at least 10 years and the Yellow is a sport. Price \$50.00 per 1000.

#### **BRONZE DOT**

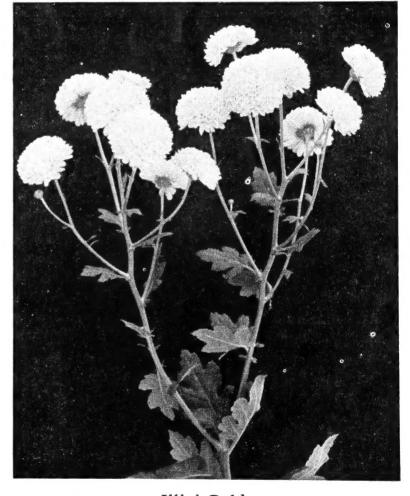
This sport of the original Pink Dot is very excellent for early shading. Grown in large quantities by Rowe of Kirkwood, Mo. Price \$40.00 per 1000.

#### NOVEMBER BRONZE

A large orange bronze button Pompon, maturing for Thanksgiving. Price \$50.00 per 1000.

#### WHITE USONA

A pure white sport of the original pink Usona. Good producer; sometimes preferred to Cordova for a white Pomp for Thanksgiving and later. Price \$60.00 per 1000.



Illini Gold.

#### ILLINI GOLD

A fine button Pompon (11/4 inches in diameter) introduced by the University of Illinois. Deep, rich golden yellow. Flowers normally Nov. 10. Price \$50.00 per 1000.



Gro. g. Ball

#### FOR FLORISTS





Green Mill Gardens at Addison, Ill., one of the largest quality pot plant growers in the Chicago area, shade a 36 x 150 ft. house in 4 to 5 minutes. Shade cloth is drawn over a net-work of over-head wires, covering all beds at one time. Variety shown is Bonnaffon Deluxe. Rooted cuttings to 21/4's 6/1; 4 plants in a 6" pot (Mr. Bergholt says 3 would have been better) 7/15; shaded 8/15—9/15.

# Growing Better Mums

By Vic Ball

#### FIRST, ON PROPAGATION

Soon as the flowering season is over, select your stock using only vigorous clean plants. You can count on about ten cuttings from each stock plant; more or less on certain varieties. Plant them to good clean soil in a cool airy house, and preferably on a raised bench. You'll get the strongest cuttings if they are kept at 45 degrees and on the dry side. A house kept at 50 or higher, close, muggy, poorly ventilated, will surely turn out spindly soft cuttings. Where winters are not too severe, a heated cold frame would do well. Keep a sharp eye out for insects here. It's a lot easier to control them, particularly midge, now than later.

In late winter, they may be run up to 50 degrees and given more water. In propagating, take cuttings 3 to 4 inches long and leave most or all of the foliage on. Some prefer to remove lower leaves and trim the uppers. It has been clearly shown that, if some shade is provided from bright sun, the untrimmed cuttings will root faster and

better. Be sure to use sterilized sand—kept at 60 to 65 degrees thru some bottom heat.

We should add a word on the recently advocated method of rooting cuttings right in soil. The unrooted cutting is usually potted to a soil made light with sand—and low in plant foods. The plan is being used successfully by a few large specialists who keep a close eye on the cuttings. For the average smaller grower, particularly when benching cuttings directly, it would be of questionable value.

#### FOR THOSE WHO BUY

For those growers who have switched over to buying in rooted cuttings from the specialist: First, if cuttings are wilted at all upon arrival, dip them in cold water and let them stand a few hours before planting. It will stiffen them up. If they are lightly frozen upon arrival they can ordinarily be revived by thawing them very gradually. Keep them just above freezing for half a day, then warm up gradually.



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### FOR FLORISTS



Some growers order cuttings for delivery as early as January, planning to use the plants for propagating in the spring. The plan is OK but you *must* keep such cuttings under additional light until mid-March. Failure to do so will usually result in the plants going to worthless buds—and yielding no cuttings. Use 60 watt bulbs with reflectors at 6 ft. intervals 3 ft. above plants. Up to February 15 light from 12:00 midnight to 4 A.M. February 15 to March 15 light from midnight to 2:30 A.M.

#### BENCHING DATES

Successful Mum crops may be benched anywhere from late April to September. Benching may be delayed by carrying the cuttings along in plant bands—or even planting out to the field till the space is clear for them. This careful fitting of crops together into a tight rotation cuts waste space and makes greenhouses pay.

You may bench rooted cuttings June 15 for mid-season varieties flowered at their normal dates. This date may be extended in proportion for late season sorts. Mums to be black cloth shaded must be benched in early May—at least six weeks growth is needed before shading is started. If your bench is not clear in time for the above schedule, plant the cuttings off into  $2\frac{1}{2}$  inch plant bands or pots. If, a month or six weeks later, the space is still not ready, you can run them out to the field. We carried a house of late Mums and Pomps outdoors in this way this season until August 26. They suffered almost no check when benched in spite of their size—because the soil ball in the bands cushioned the root shock of replanting.

The critically important point in all this is: don't let them get hardened in pots or bands. That's one sure way to ruin a crop, increase its susceptibility to disease, etc. If the plants have obviously filled the bands, by all means plant them out in the field (band and all) where they may continue an unchecked growth. Keep them watered. Better still, where your space plans permit, bench rooted cuttings directly where they are to flower. You'll be surprised at the rapid growth, especially if kept wet enough. Furthermore, you save the cost of the intermediate handlings. And they can't get pot bound!

#### A GOOD MUM SOIL

No certain "type" soil is needed for Mums. A good garden soil—one that does good Carnations or Peas—will be fine. The really important points:

1. It must be sterilized, either with steam or hot water. To the extent of our trials, no chemicals can be relied upon for control of soil borne diseases and weeds. Propagating specialists go to great expense to supply cuttings cultured against verticillium and carefully kept clean of

foliar nematode, septoria leaf spot, etc. Why not go a step farther and use sterilized soil? Often the savings in weeding (at today's labor costs) will pay your sterilizing costs. Use sterilized soil (180 degrees for 30 minutes) in potting or banding. We have yet to see the first lot of Munis hit by verticillium, or any disease, where clean cuttings were used and soil sterilizing was carried out. It pays.

2. It must not contain excess plant food—or any salts. Every year we get a soil sample or two from a grower complaining of Mums that "won't grow." Tests show great excesses of nitrogen, and other salts. The usual story: The grower had a very hard water supply, built up an accumulation of hard water salts in his soil thru long years of watering. As these salts began to throttle growth, he turned to Vigoro, which of course only aggravated the trouble

If in doubt, have soil tests made. If excess salts are very severe, better change soil. If not too bad, water the soil very heavily daily to wash the harmful material out. Working chopped straw into the soil will help. Steaming soil, by the way, especially in summer, may temporarily aggravate the high nitrate problem.

- 3. It should have organic matter. A wheelbarrow of manure per 100 sq. ft. is good. Peat moss if available locally and cheap seems to be much to the Chrysanthemum's liking. Some growers "top dress" with it after benching—a mulch, really. Organic matter helps keep moisture uniform, acts as a buffer in avoiding extremes in nutrients, acidity, etc.
- 4. It must contain reasonable amounts of nitrates, and the other plant foods. Proper levels may be best described as somewhere between "low" and "high" on the soil testing system you are using.

#### ON PLANTING DISTANCES

Standard spacing for Pompons is 6 x 8 inches, for big Mums 8 x 8 inches with the standard two flowers per plant. It pays to look your crops over at flowering date to see which could have been run a little closer. There's a lot of difference in the way varieties grow. Also, later flowering sorts, especially if grown on ground beds, will need more room. Adapting your spacings in this way is one of those fine points which, added together, mean profits.

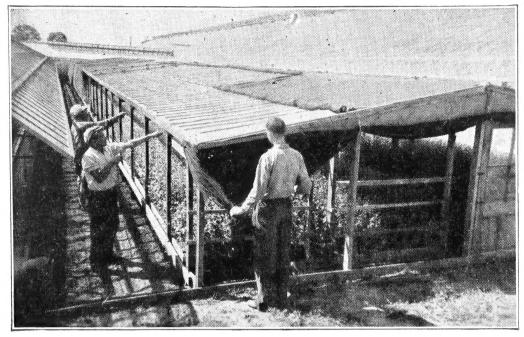
These spacings are based on flowering three shoots per plant on Pomps. Better trim out all over that to concentrate the plant on the three to be cut. Mums, by the way, are grown anywhere from one to four flowers per plant, depending on what size flower you can sell. At least part of a retail grower's Mums grown three per plant might pay a lot better than the usual two. What can you sell?



Gro. J. Ball

#### FOR FLORISTS





Shaded Pomps outdoors at our West Chicago range. No glass on that frame house. Shade is rolled up and down the roof by ropes as shown; waterproof canvas is used for shading so that flowers may be protected from fall rains. Mums seem to greatly enjoy exposure to the cool outdoor air over summer.

#### CARE OF THE CROP

Some suggestions to help keep them moving along during growing season.

1. WATERING. Especially on raised benches, you are not likely to overwater. Without doubt 90% of the watering errors on Mums are otherwise—all too often a ruinous drying out. Always watch the edges and ends. Insist on your help checking these edges with the hose between waterings. It doesn't make sense to keep the center twice as wet as the edges, yet that's what often happens.

Constant level watering as developed at Cornell is most dramatic proof of all this. Here, soil is actually kept muddy wet 24 hours a day—edges, center and all—all the soil can soak up. The fine Mums and other crops, too, produced under these conditions besides offering a great saving in labor, teach the hose waterer the importance of lots of water. Lots of it!

2. FEEDING. Soil testing, easily done by any grower, is the best guide here. Biggest point in fertilizing is to avoid an excess, and occasional tests will prevent that. However, there are a few general practices that can be recommended. When benching Mums to fresh field soil, we add 4 lbs. per 100 sq. ft. of 20% superphosphate, a wheelbarrow load of cattle manure per 100 sq. ft., then rototill the soil to work this in. As Mums get into active growth, they will stand several light applications of a balanced fertilizer such as Vigoro. 1½ to 2 lbs. per 100 sq. ft. will be ample. Plants on raised beds will stand more feeding.

Where a soil is carried over from a previous crop and sterilized, soil tests are the only accurate basis for feeding. Even here tho, experience shows that the application of phosphorous and manure once a year is helpful, and not an excess.

- 3. SHADING. Certainly any Mums benched during hot weather will get off to a better start with a fairly heavy shade, in fact failure to do so invites loss. Also, during the hot summer months, Mums most anywhere will do better if given some protection from the bright sun. Under glass, a light shade will do. Outdoor crops benefit greatly by cheesecloth covering. As light intensity drops in the fall, be sure to remove all shade.
- 4. WETTING DOWN. You can almost see a house of Mums "perk up" on a hot summer afternoon when you go over them with a light overhead watering with a hose. It's like a cooling shower. Beyond doubt, it helps them

thru the hottest weather and it certainly helps check spider. However, plant disease men are strongly against the practice—it helps spread such troubles as foliar nematode, septoria leaf spot, etc. It seems to us that the practical compromise is to wet them down till the first sign of these diseases appears.

5. TEMPERATURES, in summer are beyond our control except to keep all vents open unless storms threaten. And don't forget shading and syringing.

The standard winter night temperature for Chrysanthemums has always been 50 with 58 to 60 on cloudy days and 65 if clear. However, research has shown that buds may fail to form unless a minimum (night) temperature of 60 is held. How then have we been getting along all these years at 50? For one thing, many varieties set buds early enough in the fall to beat the cool nights. Then, too, some varieties it seems will set buds at 50 or 52 degrees sometimes. But, along with this, we must admit we have had Mums, especially very late ones, go blind or partly blind when grown at 50 degrees nights.

So to avoid blindness, especially on December flowering sorts, better provide a night reading of at least 55, better 60 degrees until buds are in sight. Watch the Garzas especially.

#### PINCHING AND SELECTING THE BUD

We hear a lot these days about "time pinching"—following a carefully regulated date for the last pinch. It is certainly no more work or expense and, for spray Pomps will give a much more desirable spray formation. Advantage of a correctly timed pinch compared to too early or too late



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a pinch is that when time pinched all flowers in the spray will be at about one level. If pinched too early, the crown or center flower in the spike will be set low and the side buds will grow out above it. Too late pinching will cause the crown to be higher than the rest of the spray.

In the case of big Mums, a correctly timed pinch will usually avoid formation of a crown bud. The terminal that does form will give a straighter, more desirable neck.

Under our listing of varieties and prices, page 9, will be found correct pinching dates for all kinds flowered at normal dates. Under our CROP SCHEDULE, page 15, will be found correct pinching dates for all shaded and lighted crops. To time pinch, you must simply pinch the plant once, on the date given (except for pot plants—see pot plant Crop Schedule). Pinching plants previous to the date given, then re-pinching them on the correct date, will not produce desired results on cut flower crops. This double pinch produces a lot of small sprays which might be usable by retail growers or for pot culture, but a single time pinch will be much better for market growers.

Quality of Pompons will be definitely improved by removing all but the best 3, sometimes 4, breaks per plant. The plant then doesn't waste its strength in poor sideshoots. Uniformity is improved. Big Mums are usually grown two flowers per plant. Some retail growers might prefer three. Even if only one flower per plant is grown, follow the time pinching schedule and select the one best shoot.

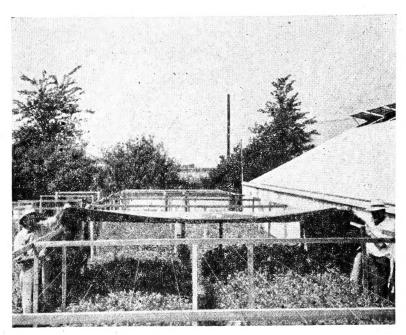
Best results will follow if you bench rooted cuttings, or if necessary, unpinched 2½ inch plants not checked. Bench several weeks in advance of pinching date so that plant will have made enough growth for a good pinch. Never pinch into hard wood; poor breaks will result.

Now, as to selecting buds on standards. Mums produce two types of buds:

- a. CROWN. A flowering bud surrounded by non-flowering vegetative shoots.
- b. TERMINAL. A flowering bud surrounded by other flowering buds.

Mums with an early normal flowering date will usually throw a crown bud in August. If it is removed and the best of the vegetative side shoots "selected", it in turn will produce a terminal bud. Some quite early sorts benched early will even make two crowns successively, but a terminal will always follow. Correct time pinching will usually cause the Mum to send out a terminal first; no crown.

On early varieties not shaded, the safest rule is to remove crown buds that appear up to August 20, allowing the strongest side shoot to grow on. If crowns appear shortly



A new angle in black cloth shading with Sisalkraft paper. The 10 ft. bed is covered by strips of paper running from ground, over top, down to ground on other side. Strips are 13½ ft. wide; 1½ ft. overlap desirable to prevent light leak. To remove shade simply slide strips off one end. Cost about 1¼c per sq. ft. of paper. The paper will keep rain off in fall as blooms open.

after that date, they may be left on. Early crowns are generally safe on shaded Mums. On mid-season sorts the final flowering bud should have been selected by around September 1 to 10; on late ones by October 1 to 10. Terminal buds are always used on late sorts. On this whole matter, experience is the best teacher. Try a few earlier crowns and note results—in writing.

#### WHEN TO CUT

Unlike Carnations and other flowers, a standard Mum cannot be cut half open and open in water. It will simply wilt within 24 hours and prove a big disappointment. Be sure the center is fully developed before cutting. Pomps should be cut when most of the flowers in the spray have opened. If you are shipping, check with your wholesaler after the first lot goes in. It will pay.

#### BLACK CLOTH SHADING

Mums, being short day plants, can be very nicely brought into bloom about a month ahead of schedule by covering them with black cloth from 5 P.M. to 7 A.M. in late summer. This actually simulates the shorter days of fall. Some pointers:

1. BENCHING DATE: (Rooted cuttings) Must be 6-8 weeks prior to shading date, otherwise you won't get the necessary 12 to 18 inches of growth before shading starts (See Crop Schedule, page 15). Too late benching means short stems. This may be delayed several weeks by holding cuttings in 2½ inch plant bands. Varieties which are to be



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shaded at one date should be grouped together to simplify the shading.

2. HOW TO SHADE. Simplest way is to run a \$9 wire above both sides of the bench, end to end. Between the two \$9 lines, run a finer \$18 wire about every foot down the bed. During shading, the cloth rests on these wires. 12-14 ft. strips of sateen can be simply draped over the whole bench, gathered together when shade is removed. Some growers rig up side curtains like a shower curtain and cover the top with a roll of cloth rolled around a stick.

On rainy nights or during very hot weather, it will help in disease prevention to remove the cloth after dark and replace it again before daylight. Watch this closely if you are having disease troubles. Be sure the covering is tight. A photographer's (Weston) meter should not read over 2 foot candles under the cover during sunny daylight. Black sateen, 64 x 104 mesh is best. For best results shade every night; missing one or two nights over the season won't be serious, but much more will simply delay flowering.

Continue shading until all buds on Pomps show color. Buds on Standards should be the size of a nickel before shading is stopped.

Starting on page 15 will be found our Crop Schedule giving correct planting, pinching, shading, and flowering dates for varieties most suitable for shading. In most cases, complete dates are given to bring each variety into bloom on several different dates. In this way, retail growers can flower a batch of each important color at weekly intervals thru the season. It is generally more satisfactory to use one variety on three different shading schedules rather than to try to select three varieties with different flowering dates. Early and mid-season varieties are best for shading.

#### **OUTDOOR MUMS**

Increasingly popular among mid-western and eastern growers, and done on a very large scale out west. For the eastern grower, it offers two big advantages on early crops: first, better exposure to outdoor air—getting out of the hot greenhouses. Second, it is much cheaper than using glass space.

Pomps may be benched right outdoors, same as you would for shading under glass. For best results, provide a cheesecloth roof to break the full sun. It will give you cleaner better stock, and flower colors won't sunburn. Some extra care is required to hold the black cloth down in case of summer storms.

To flower big Mums outdoors in the East, some protection is needed especially during the actual flowering season. We have had good success with our so-called "Flexo-glass houses". We build up a framework same shape as a green-

house, using 1 or 11/4 inch pipe. Our houses are 24 ft. wide, 6 ft. gutters, and standard roof pitch. We like to provide cheesecloth over the plants during summer. Then, as color starts to show, we fit large sash of one of the many inexpensive glass substitutes over the house. By adding several lines of steam pipe, we are able to keep in production till well along in October. That permits use of some of the fine November flowering varieties. Quality generally is good with very little rotting of flowers.

Shading on these houses, by the way, was done over the roof. 14 ft. strips of Sisalkraft paper (\*) were run from the ridge down the roof, sides, and to the ground. At the ground end of each strip a 14 ft. pole (2 x 2 inch) was nailed to the paper. To roll the shade up, the paper is just rolled up on the pole to the ridge. This can be done mechanically. Using clothesline, fasten a rope at the ridge, under the paper. Run it down the roof and sides of the house to the ground, over the 2 x 2 pole, and back up the ridge on top of the paper. At the ridge, it is run thru a pulley then back to the ground. By simply pulling this loose end of the rope, the shade will then roll up. We also used this arrangement for shading a house of Pompons -using a simple wood frame to support the Sisalkraft paper. It is a great labor saver, and the paper is cheap. (See cut on page 5).

#### AS POT PLANTS

Well grown, they make a handsome fast selling fall pot plant. Essentials of culture:

- 1. PLANTING. The modern method is to plant 3 or 4 rooted cuttings to a standard 6 inch pot. The good midseason sorts are planted in early June; sooner, of course, for earlier ones or if they are to be shaded. You may first pot the cuttings to  $2\frac{1}{4}$  inch pots; this enables you to sort out the weaker ones before final potting. Be sure the soil is high in organic matter either from well rotted manure or peat; it helps a lot both in watering and feeding.
- 2. PINCHING. While many growers only pinch pot Mums twice, three pinches seem to produce best shaped plants in the end. The Crop Schedule for Pot Varieties (page 20) gives final pinching dates for many sorts. Records of your own previous crops plus common sense are the biggest help.
- 3. CARE OF THE CROP. Moving pot Mums outdoors over the summer is a big boost to them, especially if cheese-cloth shade is provided. The open air seems to produce a more vigorous husky growth. Also, pot Mums will require a good bit of feeding, best based on soil tests. Normally starting with fresh field soil, a teaspoonful of Vigoro \*Sisalkraft Co.. 205 W. Wacker Drive, Chicago, Ill. Cost about 11/4c per sq. ft.



Grog Ball

## FOR FLORISTS





A fine stand of shaded Good News. Photo taken Sept. 17. Joe Bezdek, Wilmette, Ill. was grower. He reports that rooted cuttings were benched directly May 23; shade applied July 8 to Aug. 22. Three flowers per stem.

or equivalent several times during the summer and fall will be needed. Ammonium sulfate may be used instead early in the summer.

To finish nice clean plants, they should be brought under glass again by Labor Day.

Some growers plant cuttings out to the open field in June, keep them pinched and in active growth over the summer. In early September, they are lifted and potted to 6's. Very careful protection from sun, and good watering are needed to avoid loss of lower leaves.

4. VARIETIES. Nearly all large standards or disbuds and anemones. They make a much showier plant than the button types. Current favorites: Blazing Gold, Marketeer, Sun Gold, and Yellow Beauty. Our new Granite State is an exceptionally fine pot strain, being quite dwarf. Also, it's foliage stays up close to the bloom—no long neck.

In general, avoid tall growers. For further suggestions, see Pot Plant Crop Schedule, page 20.

5. SHADING works fine on pot Mums. Same methods as for cut Mums. See page 20 for schedules.

#### FLOWERING MUMS EVERY MONTH

Perfectly practical to do so. Only question is whether or not there will be a winter and spring market for them under your conditions. Cost per bunch will be higher in spring than outdoor grown fall crops, of course, but all flowers are worth more then. For those unfamiliar with this year around flowering of Mums, it is a plan whereby our regular fall flowering Mums and Pomps can be made to bloom during any week of the year. This is accomplished by either shortening the length of day (black cloth shade) or lengthening it (electric lights used at night), or both. For example, to make the Pompon Lakme flower September 1, you must apply black cloth shade 5 P.M. to 7 P.M. from June 18 till all buds show color. To bring the same variety into flower May 20, you must lengthen the winter days with electric lights from benching date to March 8, then shade March 8 till all buds show color. In this case lights are needed to prevent bud formation till stems are long enough, then, since days lengthen in March, black cloth shade is needed to force the variety into bud.

Cuttings used for fall and winter planting must have been light treated in the sand to prevent premature buds. We can furnish cuttings so treated. Lights, when called for should be 60 watt, 6 x 6 ft. and 3 ft. above the plants. Lights must be turned on the following hours. Up to February 15 light from 12:00 midnight to 4 A.M. February 15 to March 15 light from midnight to 2:30 A.M. Shading procedure is the same as described elsewhere in this catalog under Shading.

A night temperature of 60 degrees is required during bud formation to insure getting these off season crops to set bud. Also, soil must be kept on the wet side.

As to varieties, generally the whites and yellows stand the winter and spring flowering best; bronze and pinks are apt to fade. Some varieties of Mums may be used. Generally early flowering button Pomps are best. Varieties listed under Crop Schedule have been tried for dates given.

While the project is a promising one, much is yet to be learned, especially regarding varieties. If you are interested, we suggest a fairly small trial the first season, including a maximum number of varieties. From these you can select those that do best under your conditions.

If interested, see Crop Schedule page 15. It gives dates for planting, lighting, shading, pinching and flowering of many varieties of Mums and Pomps.

#### INSECT CONTROL

A most important part of growing better Mums. The big trick here is always to anticipate trouble or, failing that, get really busy at the first sign of infestation.

1. MIDGE—One of the most serious and difficult to control. First, carefully select stock plants and cuttings free of it. Where infestation is already established, the most





#### FOR FLORISTS



effective control is sodium selenate, used as directed on container. Two applications at two week intervals will give excellent control but will cause some injury on some varieties. Most growers consider the control worth the injury. Loro is effective at 1 to 800 with a good spreader sprayed every 3 days for ten times, then weekly as preventative.

- 2. RED SPIDER can be a lot of trouble, especially in warm weather. Daily "wetting down" of foliage is real help. Loro 1 to 800 with Grasselli 1 to 1200 is good, but may injure some varieties, especially in warm weather. Vapotone has given good results but has been tried only on a few varieties. Try it on a few plants first. Since this material gives no control of eggs, three sprays at four day intervals are needed.
- 3. THRIP. Detex or any good DDT spray is very effective.
- 4. APHIS. Nicofume pressure fumigation is good. Nicofume liquid 1 to 300 with Grasselli spreader 1 to 1000 will give control. We find Vapotone very effective; see cautions under Red Spider above.
- 5. LEAF MINER. Nicofume liquid with soapy spreader; must be fairly strong.
- 6. MEALY BUG. Water syringing under good pressure is one of the best controls. Loro plus a good spreader and not too strong will give results. Vapotone with Santomerse S spreader at 1 to 2000 will give good kill but must be tried out on each variety on a small scale first.
- 7. LEAF ROLLER (tier) and cut worms. Detex or any good DDT spray.
- 8. FOLIAR NEMATODE. Select cuttings from clean plants and bench only in sterilized soil. Also, if infestation occurs, keep foliage dry at all times. Splashing water spreads the worms. Some infestations may be cleaned up with sodium selenate. Apply at strength recommended on container 2 weeks after planting. Then repeat in another 2 weeks. May injure some varieties.
- 9. GRASSHOPPERS. Hand picking, or arsenate of lead dust. Don't dust plants about to be cut.

#### PRINCIPAL DISEASES

1. STUNT. A new disease having made its first serious appearance in the fall of 1947. Principal symptoms are dwarfing of plant and blooms to about  $\frac{1}{2}$  to  $\frac{2}{3}$  normal size, earlier bud and bloom formation, and on red varieties a notably paler color. Otherwise plants are normal; blooms are usually saleable as seconds. Stunt does not cause any shrivelling of leaves or rotting of the plant.

The disease has been identified as a virus. As such it can be spread from stunted to healthy plants by some such means as insects, soil transmission, etc.—not definitely known at this time. Altho time has not permitted thoro

investigation of stunt yet, a few general control measures can be outlined. Obviously you must bench only stunt free cuttings. In selecting stock plants for propagation, they must be taken from a lot free of stunt—and preferably from a house free of stunt. A plant infected late in its growth period may never show stunt symptoms, but will transmit it to its cutting progeny. Cuttings taken from stunt free stock plants, kept in sterilized soil, and kept free of insects thruout growth should normally flower stunt free the next fall. Aphis are suspected of being carriers of the virus. It may travel thru the soil from infected to clean plants. Like most diseases, it attacks certain varieties worse than others. And like Aster yellows (a virus), once a plant is infected, there is no cure.

Like any new disease, it will take several seasons to locate and thoroly test stunt free "parent" blocks—and to build up stock of them. Meanwhile, all possible is being done by scientists at the U.S.D.A., Cornell and other schools, and by research people at Yoder Brothers, Barberton, to establish definite control measures—and to provide cuttings free from stunt as is humanly possible.

Where growers are unable to obtain cuttings guaranteed stunt free, some help may be obtained by over-propagating suspected varieties say 50%. Cuttings are potted or banded and just prior to benching ½ of the weakest plants are discarded.

- 2. VERTICILLIUM (Seidewitz Disease) is a serious Mum problem. Starting at edges, leaves turn yellow, dry up—usually from the bottom of the plant first. Some varieties take it worse than others. Only known control is to plant cuttings which have been cultured against it—and be sure to use sterilized soil. Steam preferred.
- 3. SEPTORIA. Small dark brown spots, increasing in size, finally causing leaves to drop. Attacks lower leaves first. Most serious on outdoor plantings. Delay propagating till long shoots are available; take only a short cutting out of the tip. Dip cuttings in Fermate, 1 lb. per 100 gallons of water. Keep foliage dry in sand and clear thru growing period. After planting, spray plants with Fermate 1 lb. per 100 gallons every 10 days till plants are 18 inches high. Spraying is especially important on outdoor plantings in rainy seasons.
- 4. MILDEW. Sulfur dust is effective if no colored flowers are present. Malachite green spray may be used. Greenol (California Spray and Chemical Co.) with Santomerse S, 1 to 2000, has been recommended recently as being very effective.
- 5. RUST. Same spray program as was recommended for Septoria leaf spot.

For cultural notes on Pot Mums, see page 21.









# Instructions for Ordering

This catalog contains valuable cultural directions for the growing of Mums, both inside the greenhouse and outside under shade cloth.

#### TERMS OF SALE

- 1. The minimum total order that can be accepted is 500
- 2. Fifty of each variety is the minimum that can be supplied.
- 3. More than 50 of a variety must be in multiples of 50.

All shipments will start about April 1st. Orders must be marked with a definite delivery date, such as May 10th -June 1st-etc. Orders marked "Early Delivery"-"Deliver when ready"—"Spring Delivery" are too indefinite.

Changes or cancellations on your order must be received at least 30 days before shipping time.

In making out your order please use special alphabetically arranged order blank enclosed with this catalog.

#### **SUBSTITUTIONS**

We will substitute varieties as good or better for any items not listed in this catalog unless order is marked NO SUBSTITUTIONS.

#### SHIPPING INFORMATION

Special shipping instructions and address if different from your regular mail address should be shown on your order. All cuttings are shipped Railway Express, Air Freight or Air Express Collect and are in perfect condition before being accepted by the Express Company. Therefore, if there is any damage enroute from being broken, heated or frozen, call your express agent to inspect the same, marking on express receipt the condition of the package and amount of damage, etc. You must file claim, as our responsibility ceases when Express Co. accepts shipment. We cannot be responsible for the safe arrival of your cuttings.

We, Geo. J. Ball, Inc., give no warranty, express or implied, as to the productiveness of any seeds, bulbs or plants we send out and we will not be in any way responsible for the crop. Our liability, in all instances, is limited to the purchase price of the seed, bulbs, or plants.

## Large Flowering Standards

Note carefully above instructions for ordering. No orders for less than 50 cuttings of a variety accepted. S-Indicates varieties we find most suitable for shading. P-Indicates varieties suitable for Pot Plants. Pinching and flowering dates given here are for normal flowering without shading or lights.

#### YELLOW

Name and Description	Size & Type	Pinch: Dat	_	М	atures	Price per 1000
P GOLD LODE. Light golden yellow	Int. Reflexed	July	4	Oc	t. 5	\$40.00
S YELLOW CHIEF. Sport of Pink Chief	Int. Incurved	July	8	Oc	t. 15	42.50
GOLDEN OCTOBER. Deep lemon yellow	Int. Semi-Inc.	July	8	Oc	t. 15	47.50
P CELESTRA. Lemon yellow	S. Incurved	July	8	Oc	t. 15	40.00
SP MRS. KIDDER. Deep lemon yellow	L. Incurved	July	8	Oc	t. 20	40.00
P YELLOW AMBASSADOR. Light lemon yellow	L. Incurved	July	8	Oc	t. 20	42.50
SP BLAZING GOLD. Deep golden yellow		July	8	Oc	t. 20	42.50
S SUNGLOW. Golden yellow	L. Incurved	July	14	Oc	t. 25	40.00
CITRONELLA. Light buff yellow	Int. Incurved	July	16	Oc	t. 28	45.00
SP GOLDEN GLORY. Golden yellow	Int. Semi-Inc.	July	16	No	v. 1	42.50
S GOOD NEWS. Deep lemon yellow	Int. Incurved	July	16	No	v. 1	45.00
YELLOW TURNER. Light yellow	L. Incurved	July	19	No	v. 5	45.00
S INDIANAPOLIS YELLOW. Lemon yellow	Int. Incurved	July	20	No	v. 8	45.00
S YELLOW QUEEN (New). Yellow sport of Orchid		•				
Queen. See cover 2 for full description	L. Incurved	July	19	No	v. 10	80.00
P CARDONIA. Deep golden yellow	Int. Incurved	July	19	No	v. 10	37.50
SP PENROD. Golden yellow	Int. Incurved	July	19	No	v. 10	42.50
WHITTIER. Lemon yellow	L. Incurved	July	19	No	v. 10	40.00
P IMP. HONEY DEW. Yellow	Int. Incurved	July	22	No	v. 15	42.50
YELLOW MONUMENT. Light lemon yellow		July	20	No	v. 10	40.00
S YELLOW MEFO. Lemon yellow		July	24		v. 20	42.50







# BETTER MUMS Grog Ball FOR FLORISTS Large Flowering Standards

## YELLOW—(Continued)

NI	Sinc & Tubo	Pinching Date	Matures	Price per 1000
Name and Description	Size & Type			-
SP BONNAFFON DELUXE. Golden yellow		July 25	Nov. 20	37.50
P FRIENDLY RIVAL. Deep chrome yellow		July 25	Nov. 23	40.00
MARIE DEPETRIS. Deep golden yellow		July 24	Nov. 23	40.00
HARVESTER. Deep canary yellow,		July 28	Nov. 25	75.00
P SUN GOLD. Lemon yellow	Int. Semi-Inc.	July 28	Nov. 25	42.50
S GOLDEN PEARSON. Light golden yellow	Int. Incurved	July 28	Nov. 25	37.50
IMPROVED YELLOW CHATTANOOGA		July 28	Nov. 25	42.50
GOLDEN MRS. ROSS. Golden yellow	L. Incurved	July 28	Dec. 1	40.00
GOLDEN MISTLETOE. Light golden yellow	L. Incurved	Aug. 1	Dec. 10	40.00
P IMPROVED TOBIN'S YELLOW	Int. Semi-Inc.	Aug. 4	Dec. 15	42.50
WHIT	E			
SMITH'S EARLY WHITE	Int Semi-Inc	Jul <del>y</del> 4	Oct. 5	37.50
S WHITE CHIEF. Sport of Pink Chief		July 8	Oct. 15	42.50
QUAKER MAID. White tinged pink	Int. Reflexed	July 8	Oct. 15	37.50
S SILVER SHEEN		July 8	Oct. 20	37.50
SP CHRISTINA.		July 12	Oct. 20	40.00
P AMBASSADOR. Cream white		July 8	Oct. 20	42.50
S ALBATROSS.		July 14	Nov. 1	42.50
SP SNOW WHITE.		July 14	Nov. 1	37.50
S BETSY ROSS. Ivory white		July 16	Nov. 1	40.00
WILLIAM TURNER. White		July 19	Nov. 5	45.00
S INDIANAPOLIS WHITE.		July 20	Nov. 8	45.00
JEAN ELIZABETH.	211002700	July 24	Nov. 20	50.00
MONUMENT. Ivory white	L. Incurved	July 20	Nov. 10	40.00
SP MARKETEER.		July 25	Nov. 18	40.00
S MEFO. Ivory white		July 24	Nov. 20	42.50
P WHITE FRICK. White suffused pink		July 28	Nov. 25	50.00
CHATTANOOGA		July 28	Nov. 25	40.00
DECEMBER GLORY LARGE. Ivory white		July 31	Dec 1	40.00
DECEMBER WHITE.	_	July 31	Dec. 5	70.00
IMP. DECEMBER BEAUTY	L. Incurved	Aug. 2	Dec. 8	42.50
WHITE MISTLETOE	Int. Incurved	Aug. 1	Dec. 10	40.00
P SMITH'S LATE WHITE. Ivory white	Int. Semi-Inc.	Aug. 4	Dec. 15	<b>4</b> 2.50
BRONZE AN	D RED			
S INDIANOLA Light moddish become	Tat Care! Tare	. Index 0	0-4 15	10 =0
S INDIANOLA. Light reddish bronze	Int. Semi-Inc.	July 8	Oct. 15	42.50
S HILDA BERGEN. Dark reddish bronze		July 8	Oct. 20	42.50
SP GLITTERS. Deep reddish orange		July 16	Oct. 28	42.50
P IVANHOE. Reddish bronze		July 16	Nov. 1	60.00
SP APRICOT QUEEN. Orange bronze	Int. Incurved	July 16	Nov. 1	42.50
S DETROIT NEWS. Reddish bronze	Int. Incurved	July 16	Nov. 1	45.00
S INDIANAPOLIS BRONZE, Buff bronze		July 20	Nov. 8	45.00
BRONZE ORCHID QUEEN. Apricot buff	L. Incurved	July 20	Nov. 10	50.00
S ANACONDA. Deep coppery red	Int. Incurved	July 22	Nov. 15	50.00
S MRS. ROY. Crimson	Int. Incurved	July 24	Nov. 15	<b>47.50</b>
GIADVS PEARSON Light buff bronze	Int. Kenexed	July 25	Nov. 18	50.00
GLADYS PEARSON. Light buff bronze	Int. Incurved	July 28	Nov. 25	37.50
P BRONZE FRICK. Light bronze	Int. Incurved	July 28	Nov. 25	37.50
BRONZE MISTLETOE. Buff bronze	Int. Incurved	July 28	Nov. 25	50.00
DAOINE MIGILETOE, Dun pronze	int. incurved	Aug. 1	Dec. 10	40.00



Grog Ball





# Large Flowering Standards

#### **PINK**

Name and Description	Size & Type	Pinch Dat	_	Matu	res	Price per 1000
S PINK CHIEF. Lavender	Int. Incurved	July	8	Oct.	20	42.50
SP JUSTRITE. Light rose pink		July	8	Oct.	15	45.00
MAJOR BOWES. Deep lavender	Int. Incurved	July	12	Oct.	20	45.00
OCTOBER ROSE. Light lavender		July	14	Oct.	25	<b>40.</b> 00
PINK TURNER. Lavender		July	19	Nov.	5	45.00
SP J. W. PRINCE. Rose pink	Int. Incurved	July	19	Nov.	5	37.50
RAYONNANTE. Pink	Spider	July	20	Nov.	5	45.00
S INDIANÁPOLIS PINK. Deep lavender	Int. Incurved	July	20	Nov.	8	<b>45.00</b>
S DARK PINK ORCHID QUEEN. Mauve pink	L. Incurved	July	20	Nov.	10	<b>70.0</b> 0
S ORCHID QUEEN. Orchid pink	L. Incurved	July	20	Nov.	10	<b>50.</b> 00
THANKSGIVING PINK, Amaranth	Int. Reflexed	July	24	Nov.	23	37.50
P HELEN FRICK. Rose pink	Int. Incurved	July	28	Nov.	23	45.00
EDWIN SEIDEWITZ. Lavender	Int. Incurved	July	28	Nov.	25	37.50
DISTINCTION. Pink		July	28	Nov.	25	42.50
PINK MISTLETOE. Lavender	Int. Incurved	Aug.	1	Dec.	10	40.00

## Pompons Singles and Anemones

Types are abbreviated as follows: Pom.—Pompon; Dec.—Decorative; Sgl.—Single; Anem.—Anemone. Size of flower is indicated by S.—Small; Int.—Intermediate; L—Large.

S—Indicates varieties we find most suitable for shading.

D—Indicates varieties suitable to grow as disbudded pompons. H—Hardy or garden types.

P-Indicates varieties suitable for Pot Plants.

Pinching and flowering dates given here are for normal flowering without shading or lights.

Note carefully instructions for ordering on page 9. No orders for less than 50 rooted cuttings of a variety accepted. Your total order must be for not less than 500 rooted cuttings.

#### YELLOW

Name and Description	Size & Type	Pinching Date	Matures	Price per 1000
H EARLY YELLOW. Light golden yellow	Short, S. Pom.	June 20	Sept. 15	47.50
H POMPONETTE. Light buff yellow	Med., Int. Pom.	June 20	Sept. 20	40.00
PH HONEYCOMB (New). Deep golden yellow		•	-	
See cover 2 for full description		July 10	Sept. 25	80.00
H KING MIDAS. Light lemon yellow	Med., Int. Dec.	June 30	Sept. 30	40.00
SH YELLOW IRENE. Light lemon yellow	Short, S. Pom.	July 8	Oct. 15	42.50
SH RODELL IMPROVED. Light lemon yellow	Short, Int. Pom.	July 8	Oct. 20	37.50
S YELLOW HAMMER. Golden yellow	Med., Int. Pom.	July 8	Oct. 20	40.00
S GOLDEN SPRAY. Deep lemon yellow		July 12	Oct. 23	42.50
S GOLD COAST. Deep lemon yellow	Small Pom.	July 14	Oct. 25	60.00
SD GOLDEN HERALD. Deep golden yellow	Med., L. Dec.	July 14	Oct. 25	42.50
S YELLOW DOT. Yellow, bronze center		July 14	Oct. 25	40.00
S YELLOW ARCADIA. Pernet yellow		July 14	Oct. 28	40.00
S YELLOW DAISY. Deep lemon yellow	Med., Int. Sgl.	July 14	Nov. 1	42.50
SD MARY L. HALL. Lemon yellow	Tall, Int. Pom.	July 14	Nov. 1	40.00
D YELLOW SEA GULL. Light lemon yellow	Tall, Int. Pom.	July' 16	Nov. 1	37.50
BARCAROLE. Golden yellow	Int. Pom.	July 20	Nov. 5	50.00
S NUGGETS. Light lemon yellow	Short, S. Pom.	July 20	Nov. 5	37.50
S CONSTELLATION (New). Yellow. See cover 2				
for full description	Int. Dec.	July 20	Nov. 5	80.00
S YELLOW BUSHNELL. Pernet Yellow	Tall, Int. Pom.	July 20	Nov 8	<b>45.0</b> 0





## FOR FLORISTS



# Pompons Singles and Anemones

YELLOW—(Continued)

	/	Dinalina		Price
Name and Description	Size & Type	Pinching Date	Matures	per 1000
-	once of Type			•
\$ ILLINI GOLD. Deep golden yellow button.		- ·	3.7	<b>#</b> 0.00
Flowers 11/4 in. in diameter		July 19	Nov. 10	50.00
PIXIE. Deep golden yellow	Med., S. Pom.	July 20	Nov. 10	40.00
SPD YELLOW BEAUTY. Golden yellow		July 19	Nov. 10	40.00
SD HELIOS. Deep golden yellow	Med., L. Anem.	July 19	Nov. 10	40.00
S PRINCETON. Orange yellow	Med., Int. Dec.	July 24	Nov. 15	42.50
S TALLY-HO (New). Clear yellow, similar otherwise				
to Princeton. See cover 2 for full description	Int. Pom.	July 24	Nov. 15	80.00
SD YELLOW FELLOW. Deep lemon yellow	Med., Int. Dec.	July 24	Nov. 15	<b>45.0</b> 0
P SUNRAY. Light lemon yellow	Med., Int. Anem.	July 20	Nov. 10	37.50
SD SUSANNE MILLER. Buff yellow	Tall, L. Anem.	July 24	Nov. 18	37.50
GOLDEN SURPRISE. Sulphur yellow	Med., Int. Pom.	July 25	Nov. 18	50.00
GOLDEN EMBLEM. Golden yellow	Int. Pom.	July 25	Nov. 23	70.00
HASEGAWA GOLD. Light golden yellow	Med., Int. Pom.	July 25	Nov. 23	<b>45.0</b> 0
D YELLOW ROLINDA. Light buff yellow	Med., Int. Anem.	July 25	Nov. 23	37.50
YELLOW BRISTOLITE. Sport of Bristolite	Int. Pom.	July 28	Nov. 25	50.00
SUNNYSIDE. Golden yellow	Med., Int. Pom.	July 28	Nov. 25	50.00
LODESTAR. Golden yellow		July 28	Nov. 25	70.00
D GOLDEN JANE. Brilliant golden yellow		July 28	Nov. 28	40.00
P YELLOW CORDOVA. Lemon yellow		July 28	Nov. 30	45.00
YELLOW CAMEO. Deep lemon yellow	Int. Pom.	Aug. 1	Dec. 5	60.00
OMEGA. Lemon yellow		Aug. 1	Dec. 10	80.00
D YELLOW SUPREME. Buff yellow	Med., L. Anem.	Aug. 2	Dec. 10	37.50
DECEMBER GOLD. Deep golden yellow		Aug. 4	Dec. 15	45.00
YELLOW GARZA. Lemon yellow		Aug. 4	Dec. 15	47.50
SUNKIST. Golden yellow		Aug. 7	Dec. 20	70.00
VIBRANT. Deep lemon yellow		Aug. 4	Dec. 20	42.50
YELLOW SNOW. Deep lemon yellow		Aug. 7	Dec. 30	37.50
IVORY SNOW. Ivory yellow		Aug. 7	Dec. 30	70.00
2. 02.2 02.0 2.02, 70.20		8' /	200. 90	, 0.00
*****	<b>1</b> 73			
WHIT	E			
H JEAN CUMMING. Ivory white	Med., Int. Dec.	June 20	Sept. 20	55.00
HP SERENITY (New). White Daisy. See cover 2	Sol	July 10	Sept. 25	80.00
AVALANCHE		July 4	Oct. 5	42.50
H UVALDA. Cream white	Med Int Pom	July 4	Oct. 10	40.00
SP WHITE JEWELL		July 8	Oct. 15	40.00
SDH SILVER BALL		July 8	Oct. 15	37.50
SH IRENE		July 8	Oct. 15	40.00
\$ MINONG		July 8	Oct. 20	37.50
PINOCCHIO		July 14	Oct. 25	60.00
P GRANITE STATE		July 12	Oct. 25	60.00
S ARCADIA		July 12 July 14	Oct. 28	40.00
SD SEA GULL. Cream white		* .*		37.50
SD WHITE DOTY. Ivory white		July 20	Nov. 10	40.00
S BLANCHE		July 14	Nov. 1	42.50
D WHITE ANEMONE	Toll Int Anom	July 16	Nov. 1	
S REV. BUSHNELL. Cream white	Tall Int Dom	July 19	Nov. 5	45.00
SD SHASTA	Mod Int Answer	July 20	Nov. 8	45.00
\$ CRYSTAL IFWELL	Tall S Dan-	July 20	Nov. 8	40.00
\$ CRYSTAL JEWELL	Int. Dom.	July 19	Nov. 8	40.00
VESPER	Int. Pom.	July 24	Nov. 15	50.00
SD WHITE MENSA. Ivory white	Med., Int. Sgl.	July 20	Nov. 10	37.50
SPD RICHARD MANDEL	Med., Int. Anem.	July 20	Nov. 10	37.50
SPD RICHARD MANDEL	L. Pom.	July 19	Nov. 10	37.50







# BETTER MUMS Grog Ball FOR FLORISTS Pompons Singles and Anemones

#### WHITE—(Continued)

Name and Description	Size & Type	Pinching Date	Matures	Price per 1000
CHICAGO PEARL. Ivory white	Med., Int. Pom.	July 22	Nov. 15	40.00
SD WHITE FREIDA. Yellow cushion		July 22	Nov. 15	40.00
D WHITE NORMA. White suffused with pink		July 25	Nov. 18	37.50
MATCHLESS. White	Int. Pom.	July 28	Nov. 20	70.00
<b>D</b> LONG ISLAND BEAUTY. White, yellow cushion	Med., L. Anem.	July 24	Nov. 20	37.50
D NEVADA. White, green cushion	Med., Int. Anem.	July 25	Nov. 20	70.00
PEARL	Tall, Int. Pom.	July 25	Nov. 20	37.50
SEAFOAM	Med., Int. Pom.	July 24	Nov. 20	40.00
PRISCILLA		July 24	Nov. 23	50.00
WHITE USONA. Clear white	Med. Int. Pom.	July 28	Nov. 25	60.00
PD WHITE YULETIDE		July 28	Nov. 28	37.50
P CORDOVA. Cream white		July 28	Nov. 30	40.00
ROYAL QUEEN		July 31	Dec. 5	37.50
CAMEO. Ivory white	Med., Int. Pom.	Aug. 1	Dec. 5	42.50
YUKON		Aug. 1	Dec. 10	37.50
D WHITE SUPREME	,	Aug. 2	Dec. 10	37.50
POM. DECEMBER GLORY. Ivory white		Aug. 4	Dec. 15	42.50
GARZA SUPREME		Aug. 4	Dec. 15 '	
SNOW. Ivory white	Med., Int. Pom.	<b>A</b> ug. 7	Dec. 30	37.50
REVELATION	Med., Int. Pom.	Aug. 7	Dec. 30	50.00

#### **PINK**

	Name and Description	Size & Type	Pinch. Dat		Matu	res	Price per 1000
	EARLY WONDER. Lavender	Med., Int. Dec.	June	20	Sept.	15	37.50
HP	SPELLBOUND (New). Lavender pink. See cover				_		
	2 for full description	Int. Dec.	July	10	Sept.	25	80.00
H	MRS. DUPONT. Peach pink	Med., Int. Dec.	July	4	Oct.	5	40.00
, H	LAVENDER LADY. Lavender	Med., Int. Dec.	July	4	Oct.	_	40.00
	ALLEGRO. Shrimp pink		July	8	Oct.	-	60.00
S	JEWELL. Lavender	Med., S. Pom.	July	8		15	40.00
_	DARK PINK JEWELL. Deep lavender		July	8	Oct.		45.00
S	PINK PEARL. Rose pink	Med., S. Pom.	July	8	Oct.	20	47.50
S	CAROLYN YOSICK. Lavender pink	S. Dec.	July	8	Oct.	20	70.00
S	CAPT. COOK. Deep rose pink	Tall, Int. Pom.	July	8	Oct.	20	42.50
S	JESSIE. Light lavender	Med., Int. Pom.	July	14	Oct.	25	40.00
	PINK DOT. Light pink		July	14	Oct.	25	40.00
	OCTOBER PINK. Light lavender		July	14	Oct.	28	47.50
	LILLIAN DOTY. Light rose pink		July	16	Nov.	1	40.00
	W. H. BUCKINGHAM. Rose pink		July	16	Nov.	3	42.50
S	MRS. BULKELEY. Light rose		July	20	Nov.	8	45.00
	DARK PINK BULKELEY. Dark rose pink		July	20	Nov.	8	45.00
SPD	THYRA. Lavender		July	19	Nov.	10	40.00
	QUEEN OF PINKS. Lavender		July	19	Nov.		37.50
	MASTERPIECE. Tourmaline pink		July	20	Nov.		37.50
	ORCHID BEAUTY. Orchid, golden cushion		July	22	Nov.		37.50
SD	FREIDA. Light lavender, yellow cushion		July	22	Nov.		40.00
	BROCADE. Cameo pink		July	24	Nov.		70.00
_	NORMA. Pink petals, salmon cushion	_	July	25	Nov.		
	TOTALITI. I HIR petais, samion cusmon	ran, L. millin.	Jury	2)	TAOA"	19	37.50

July 25

Nov. 18

37.50









# Pompons Singles and Anemones

## PINK—(Continued)

		,		,	
	Name and Description	Size & Type	Pinching Date	Matures	Price per 1000
	•		_ 4	37 05	-
	MINUET. Mauve to rose pink		July 28	Nov. 25	70.00
	USONA. Lavender	Med., Int. Pom.	July 28	Nov. 25	50.00
	HASEGAWA PINK. Lavender	Med., Int. Sgl.	July 28	Nov. 25	37.50
PD	BEAUTIFUL LADY. Deep lavender		July 28	Nov. 25	40.00
	UNEEDA. Lavender	Int. Pom.	July 28	Nov. 25	37.50
D	VALENCIA. Orchid pink	Tall, L. Sgl.	July 28	Nov. 28	37.50
D	DARK PINK VALENCIA. Orchid pink	Tall, Int. Sgl.	July 28	Nov. 28	37.50
D	ENCHANTRESS. Deep pink	Med., L. Anem.	Aug. 1	Dec. 5	37.50
P	RIVIERA. Luminous pink	Int. Dec.	Aug. 1	Dec. 10	50.00
D	DARK PINK SUPREME. Lavender	Med., L. Anem.	Aug. 2	Dec. 10	37.50
	PINK TREASURE ISLAND. Light lavender		Aug. 7	Dec. 20	50.00
	ROSALIND. Rose pink		Aug. 7	Dec. 20	40.00
	•				
	BRONZE AN	ID RED			
Н	EARLY BRONZE. Orange bronze	Short, S. Pom	June 20	Sept. 15	47.50
	BURGUNDY. Wine red		July 4	Oct. 5	40.00
	RUBY POMPON. Ruby crimson		July 4	Oct. 5	40.00
	DED VELVET Volusty crimson	Int. Dec.		_	40.00
н	RED VELVET. Velvety crimson		July 4		
11	AVIATOR. Coppery red	Int. Dec.	July 4	Oct. 10	60.00
c	ROMAN BRONZE		July 12	Oct. 20	42.50
S S	ADELAIDE. Dark reddish bronze	Med., S. Pom.	July 12	Oct. 23	47.50
20	JEMIMA. Dark reddish bronze	Med., Int. Pom.	July 12	Oct. 23	45.00
3	BRONZE DOT. Excellent sport of Pink Dot for	35 1 7 . 7	* *		
	early shading	Med. Int. Pom.	July 12	Oct. 25	40.00
	NATOMA. Flame scarlet		July 12	Oct. 25	45.00
S	FIRE BIRD. Dark reddish bronze		July 14	Oct. 25	45.00
	OCTOBER BRONZE. Light bronze	Med., Int. Sgl.	July 16	Oct. 28	47.50
S	SENECA (New). Orange bronze. See cover 2 for				
	full description	Int. Dec.	July 14	Nov. 1	80.00
	BRONZE DAISY. Light bronze	Med., Int. Sgl.	July 16	Nov. 1	42.50
	BRONZE BUCKINGHAM. Light orange bronze	Short, Int. Sgl.	July 16	Nov. 3	42.50
	CASSANDRA. Orange bronze		July 20	Nov. 5	42.50
S	ROBIN HOOD. Dark red	Med., S. Pom.	July 19	Nov. 5	42.50
	NAVAHO. Deep crimson		July 20	Nov. 5	50.00
S	RED RUST. Reddish bronze		July 20	Nov. 5	70.00
	RED DAISY. Deep red		July 14	Nov. 5	47.50
	BITTERSWEET. Bittersweet red		July 24	Nov. 15	50.00
	BRONZE BULKELEY		July 19	Nov. 19	45.00
	SYLVANNA. Orange bronze	Med Int Sal			
SD	EURODA Cardinal rad	Short I Sal	July 19	Nov. 10	40.00
	EUROPA. Cardinal red		July 19	Nov. 10	45.00
	THE TITAN. Scarlet crimson		July 19	Nov. 10	40.00
PD S	RED MELBA. Light red	Short, L. Sgl.	July 19	Nov. 10	40.00
CDTO	NEW YORK. Reddish bronze	Med., S. Pom.	July 22	Nov. 13	40.00
SPD	BRONZE MASTERPIECE. Rosewood bronze	Med., Int. Pom.	July 22	Nov. 15	37.50
2	RED PRINCETON. Brazil red	Med., Int. Dec.	July 24	Nov. 15	42.50
F	GYPSY. Light reddish bronze	S. Anem.	July 22	Nov. 15	37.50
Р	NOVEMBER BRONZE. Orange bronze	Med. Int. Pom.	July 23	Nov. 18	50.00
	RUSTICON. Rust red	Int. Pom.	July 25	Nov. 20	80.00
	CATHERINE. Light reddish bronze	Med., Int. Dec.	July 25	Nov. 20	37.50
	LEGAL TENDER. Bronze and gold	Med., Int. Dec.	July 24	Nov. 20	37.50
PD	RED ROLINDA. Deep reddish bronze	Med., Int. Anem.	July 24	Nov. 23	37.50
	BRISTOLITE. Orange bronze	Int. Pom.	July 28	Nov. 25	50.00
			July 20	1101. 27	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,







# Pompons Singles and Anemones

#### BRONZE AND RED—(Continued)

Name and Description	Size & Type	Pinching Date	Matures	Price per 1000
YOLANDA. Light orange bronze	Med., S. Anem.	July 28	Nov. 25	37.50
ARGO. Orange bronze		July 28	Nov. 28	50.00
D JANE. Light buff bronze		July 28	Nov. 28	37.50
D APRICOT VALENCIA		July 28	Nov. 28	40.00
D CARNELIA. Bittersweet red	Short, L. Sgl.	July 28	Nov. 28	55.00
ROYAL CRIMSON. Dark crimson	Med., L. Dec.	July 31	Dec. 1	45.00
VIKING. Deep reddish bronze	Med., Int. Sgl.	July 31	Dec. 1	45.00
CAVALCADE. Mandarin red	Med., Int. Pom.	Aug. 1	Dec. 10	45.00
D BRONZE SUPREME. Light bronze		Aug. 2	Dec. 10	40.00
S DEBONAIR. Crimson red	Large Pom.	Aug. 1	Dec. 10	70.00
SARONG. Crimson scarlet	Med., Int. Sgl.	Aug. 4	Dec. 15	42.50

## Crop Schedule

#### This table may be used in planning

- 1. BLACK CLOTH SHADED CROPS—to flower in Sept. The date under "Plant" is correct time to bench rooted cuttings. "Pinch" is the correct date for the time pinch—one pinch, no earlier or later. "Lights Off"—ignore; not needed for fall shading. "Shade" is the correct date to start shading.
- 2. CROPS TO FLOWER AT NORMAL DATE. To determine correct date for benching, pinching, etc., turn to normal flowering date of variety, find group in which it is listed and read desired dates. For example on page 17, Yellow Cameo to flower Dec. 5 is planted July 11, pinched Aug. 1, no lights or shade.
- 3. YEAR 'ROUND MUMS (winter and spring flowering, mostly). To determine correct dates, turn to flowering

date desired, select desired variety, and for that group read appropriate planting, pinching, lighting, and shading dates. Where a "lights off" date is given, cutting must be lighted at once (same day) as benched—and lights used nightly till "lights off" date. Where a shading date is given, start normal black cloth shading on that date. Keep it up till all buds show color on spring pomps and till standard Mum buds are size of a nickel. For further details on year 'round Mum flowering, see page 7.

A SUGGESTION: Often only one or two varieties are given in each color for each flowering period. There are undoubtedly many others that will be equally satisfactory, but which have not been tried out under various lighting and shading combinations.

To Flower	Plant	Pinch	Lights Off	Shade	Varieties
Aug. 25- Sept. 4	May 2	May 23	• • •	June 28	Pompons: Pristine, Minong, Wh. Jewell, Jewell, Caroline Yosick, Capt. Cook. Standards: Good News, Blazing Gold, Silver Sheen, Ivanhoe, Oct. Rose.
	April 28	May 19		June 23	Pompons: Gold Coast, Golden Herald, Yel. Arcadia, Yellow Daisy, Yel. Dot, Mary L Hall, Pinocchio, Arcadia, Pink Dot, Oct. Pink, Jessie, Seneca.
	April 23	<b>M</b> ay 14		June 18	Pompons: Barcarole, Pixie, Yel. Bushnell, Constellation, Sunray, Nuggets, Yel. Fellow, Shasta, Wh. Mensa, Lakme, Rev. Bushnell, Sea Gull, Dk. Pk. Bulkeley, Cassandra, Navaho.
Sept. 5-14	May 12	June 2	•••	July 9	Pompons: Pristine, Minong, Wh. Jewell, Jewell, Caroline Yosick, Capt. Cook. Standards: Good News, Blazing Gold, Silver Sheen, Ivanhoe, Oct. Rose.
	May 8	May 29	•••	July 4	Pompons: Gold Coast, Golden Herald, Yel. Arcadia, Yel. Daisy, Yel. Dot, Mary L Hall, Pinocchio, Arcadia, Pink Dot, Oct. Pink, Jessie, Seneca, Fire Bird, Red Daisy.
	May 4	May 25		June 29	Pompons: Barcarole, Pixie, Yel. Bushnell, Constellation, Sunray, Nuggets, Yel. Fellow, Shasta, Wh. Mensa, Lakme, Rev. Bushnell, Sea Gull, Dk. Pk. Bulkeley, Cassandra, Navaho.





# FOR FLORISTS



					1			
To Flower	Pla			nch	Lights Off	Sha	de	Varieties .
Sept. 15-24	May May		June			Jul <b>y</b> Jul <b>y</b>		Pompons: Pristine, Minong, Wh. Jewell, Jewell, Caroline Yosick, Capt. Cook. Standards: Blazing Gold, Silver Sheen, Pink Chief, Hilda Bergen. Pompons: Gold Coast, Golden Herald, Yel. Arcadia, Yel. Daisy, Yel. Dot, Mary L Hall, Pinocchio, Arcadia, Pink Dot, Oct. Pink, Jessie,
	May	13	June	3		July	9	Seneca, Fire Bird, Red Daisy. Standards: Sunglow, Albatross, Oct. Rose. Pompons: Barcarole, Pixie, Yel. Bushnell, Constellation, Sunray, Nuggets, Yel. Fellow, Shasta, Wh. Mensa, Lakme, Rev. Bushnell, Sea Gull, Little America, Dk. Pk. Bulkeley, Masterpiece, Cassandra, Navaho, Red Rust. Standards: Ind. White, Ind. Pink, Dk. Pk. Orchid Queen, Ind. Yellow, Ind. Bronze.
Sept. 25- Oct. 4	May	31	June	21	• • •	July	29	Pompons: Pristine, Minong, Wh. Jewell, Jewell, Caroline Yosick, Capt. Cook. Standards: Blazing Gold, Silver Sheen, Pink Chief, Hilda Bergen.
	May	26	June	16	- • •	July	24	Pompons: Gold Coast, Golden Herald, Yel. Arcadia, Yel. Daisy, Yel. Dot, Mary L Hall, Pinocchio, Arcadia, Pink Dot, Oct. Pink, Jessie, Seneca, Fire Bird, Red Daisy. Standards: Sunglow, Albatross, Oct. Rose.
,	May	22	June	12	•••	July	19	Pompons: Barcarole, Pixie, Yel. Bushnell, Constellation, Sunray, Nuggets, Shasta, Wh. Mensa, Lakme, Rev. Bushnell, Sea Gull, Little America, Dk. Pk. Bulkeley, Masterpiece, Cassandra, Navaho, Red Rust. Standards: Ind. White, Ind. Pink, Dk. Pk. Orchid Queen, Orchid Queen, Ind. Bronze, Ind. Yellow.
0.54	May		June		•••	July		Pompons: Princeton, Yel. Fellow, Tally-Ho, Susanne Miller, Seafoam, Priscilla, Vesper, Brocade, Red Princeton, Bittersweet. Standards: Yel. Mefo, Mefo, Jean Elizabeth, Mrs. Roy.
Oct. 5-14	June	9	June	30	• • •	Aug.	8	Pompons: Pristine, Minong, Wh. Jewell, Jewell, Caroline Yosick, Capt. Cook. Standards: Blazing Gold, Silver Sheen, Pink Chief, Hilda Bergen.
	June	4	June	25	• • •	Aug.	3	Pompons: Gold Coast, Golden Herald, Yel. Arcadia, Yel. Daisy, Yel. Dot, Mary L Hall, Pinocchio, Arcadia, Pink Dot, Oct. Pink, Jessie, Fire Bird, Seneca, Red Daisy. Standards: Sunglow, Albatross, Oct. Rose.
	May	31	June	21		July	29	Pompons: Barcarole, Pixie, Yel. Bushnell, Constellation, Sunray, Nuggets, Shasta, White Mensa, Lakme, Rev. Bushnell, Sea Gull, Little America, Dk. Pk. Bulkeley, Masterpiece, Cassandra, Navaho, Red Rust. Standards: Ind. White, Ind. Pink, Dk. Pk. Orchid Queen, Orchid Queen, Ind. Bronze, Ind. Yellow.
	May	26	June	16	• • •	July	23	Pompons: Princeton, Yel. Fellow, Tally-Ho, Susanne Miller, Seafoam, Priscilla, Vesper, Brocade, Red Princeton, Bittersweet. Standards: Yel. Mefo, Mefo, Jean Elizabeth, Mrs. Roy.
Oct. 15-24	June	17	July	8				Pompons: Pristine, Minong, Wh. Jewell, Jewell, Caroline Yosick, Capt. Cook. Standards: Yel. Ambassador, Mrs. Kidder, Blazing Gold, Silver Sheen, Ambassador, Pink Chief, Hilda Bergen.
	June	14	July	5	•••	Aug.	13	Pompons: Gold Coast, Golden Herald, Yel. Arcadia, Yel. Daisy, Yel. Dot, Mary L. Hall, Pinocchio, Arcadia, Pink Dot, Oct. Pink, Jessie, Seneca, Fire Bird, Red Daisy. Standards: Sunglow, Albatross; Oct. Rose.
	June	10	July	1		Aug.	8	Pompons: Barcarole, Pixie, Yel. Bushnell, Constellation, Sunray, Nuggets, Shasta, Wh. Mensa, Lakme, Rev. Bushnell, Sea Gull, Little America, Dk. Pk. Bulkley, Masterpiece, Cassandra, Navaho, Red Rust. Standards: Ind. White, Ind. Pink, Dk. Pk. Orchid Queen, Orchid Queen, Ind. Bronze, Ind. Yellow.
	June	4	June	25	1	Aug.	2	Pompons: Princeton, Yel. Fellow, Tally-Ho, Susanne Miller, Seafoam, Priscilla, Vesper, Brocade, Red Princeton, Bittersweet. Standards: Yel. Mefo, Mefo, Jean Elizabeth, Mrs. Roy.
Oct. 25- Nov. 4	June	23	July	14	•••	• • •		Pompons: Gold Coast, Golden Herald, Yel. Arcadia, Yel. Daisy, Yel. Dot, Mary L. Hall, Pinocchio, Arcadia, Wh. Doty, Pink Dot, Oct. Pink, Jessie, Seneca, Fire Bird, Red Daisy. Standards: Sunglow, Albatross, Snow White, Oct. Rose.
	June	19	July	10		Aug.	18	Pompons: Barcarole, Pixie, Yel. Bushnell, Constellation, Sunray, Nuggets, Shasta, Wh. Mensa, Lakme, Rev. Bushnell, Sea Gull, Little America, Dk. Pk. Bulkeley, Masterpiece, Cassandra, Navaho, Red Rust. Standards: Ind. White, Ind. Pink, Dk. Pk. Orchid Queen, Orchid Queen, Ind. Bronze, Ind. Yellow.
	June	14	July	5	•••	Aug.	12	Pompons: Princeton, Yel. Fellow, Tally-Ho, Susanne Miller, Seafoam, Priscilla, Vesper, Brocade, Red Princeton, Bittersweet. Standards: Yel. Mefo, Mefo, Jean Elizabeth, Mrs. Roy.
	June	8	June	29		Aug.	6	Pompons: Sunnyside, Golden Jane, Yel. Cordova, Cordova, Valencia, Dk. Pk. Valencia, Anemone Valencia, Has. Pink, Apricot Valencia, Yolanda. Standards: Golden Pearson.









				Crop	Series	
To Flower	Plant	F	inch	Lights Off	Shade	Varieties
Nov. 5-14	June 29	9 Ju	ly 20	•••	•••	Pompons: Barcarole, Pixie, Yel. Bushnell, Constellation, Sunray, Nuggets, Shasta, Wh. Mensa, Lakme, Rev. Bushnell, Sea Gull, Little America, Dk. Pk. Bulkeley, Masterpiece, Mrs. Bulkeley, Linda Lou, Cassandra, Navaho, Red Rust. Standards: Yel. Monument, Yel. Queen, Ind. White, Monument, Ind. Pink, Dk. Pk. Orchid Queen, Orchid Queen, Ind. Bronze, Br. Orchid Queen, Ind. Yellow.
	June 2	4 Ju	ly 15		Aug. 23	Pompons: Princeton, Yel. Fellow, Tally-Ho, Susanne Miller, Seafoam, Priscilla, Vesper, Brocade, Red Princeton, Bittersweet. Standards: Yel. Mefo, Mefo, Jean Elizabeth, Mrs. Ròy.
	June 1	8 Ju	ly 9		Aug. 17	Pompons: Sunnyside, Golden Jane, Yel. Cordova, Cordova, Valencia, Dk. Pk. Valencia, Anemone Valencia, Has. Pink, Apricot Valencia, Yolanda. Standards: Golden Pearson.
	June 1	3 Ju	ly 4		Aug. 11	Pompons: Yel. Cameo, Omega, Cameo, Yukon, Riviera, Debonair.
Nov. 15-24		-	ly 27	Sept. 8		Pompons: Wh. Mensa, Shasta, Masterpiece, Br. Masterpiece. Standards: Yel. Queen, Orchid Queen, Br. Orchid Queen.
	July	3 Ju	ly 24			Pompons: Princeton, Yel. Fellow, Tally-Ho, Susanne Miller, Seafoam, Priscilla, Vesper, L. I. Beauty, Brocade, Red Princeton, Bittersweet, Legal Tender, Red Rolinda. Standards: Yel. Mefo, Marie DePetris, Mefo, Jean Elizabeth, Thanks. Pink, Mrs. Roy.
	June 2	8 Ju	ly 19		Aug. 27	Pompons: Sunnyside, Golden Jane, Yel. Cordova, Cordova, Valencia, Dk. Pk. Valencia, Anemone Valencia, Has. Pink, Apricot Valencia, Yolanda. Standards: Golden Pearson.
	June 2	2 Ju	ly 13		Aug. 21	Pompons: Yel. Cameo, Omega, Cameo, Yukon, Riviera, Debonair.
	June 1	6 Ju	ıly 7		Aug. 14	Pompons: Vibrant.
Nov. 25- Dec. 4	July 1	4 A	ug. 4	Sept. 18		Pompons: Wh. Mensa, Shasta, Masterpiece, Br. Masterpiece. Standards: Yel. Queen, Orchid Queen, Br. Orchid Queen.
	July 1	0 Ju	ıly 31	Sept. 12		Pompons: Seafoam, Priscilla, Vesper, Brocade. Standards: Yel. Mefo, Mefo, Jean Elizabeth, Thanksgiving Pink, Mrs. Roy.
	July	7 Ji	aly 28			Pompons: Sunnyside, Golden Jane, Yel. Cordova, Cordova, Valencia, Dk. Pk. Valencia, Anemone Valencia, Has. Pink, Apricot Valencia, Yolanda. Standards: Golden Pearson, Imp. Yel. Chatt., Golden Mrs. Ross, Chattanooga, Ed. Seidewitz, Helen Frick, Distinction, Oak Leaf, Gladys Pearson.
	July	1 Ju	ıly 22		Aug. 31	Pompons: Yel. Cameo, Omega, Cameo, Yukon, Riviera, Debonair.
Dec. 5-14	July 2	1 A	ug. 11	Sept. 28		Pompons: Wh. Mensa, Shasta, Masterpiece, Br. Masterpiece. Standards: Yel. Queen, Orchid Queen, Br. Orchid Queen.
	July 1	.8 A	ug. 8	Sept. 22		Pompons: Seafoam, Priscilla, Vesper, Brocade. Standards: Yel. Mefo, Mefo, Jean Elizabeth, Thanksgiving Pink, Mrs. Roy.
	July 1	4 A	ug. 4	Sept. 16		Pompons: Sunnyside, Golden Jane, Yel. Cordova, Cordova, Valencia, Dk. Pk. Valencia, Anemone Valencia, Apricot Valencia, Yolanda. Standards: Golden Pearson, Imp. Yel. Chatt., Golden Mrs. Ross, Chattanooga, Oak Leaf, Gladys Pearson.
	July 1	1 A	ug. 1			Pompons: Yel. Cameo, Omega, Cameo, Yukon, Riviera, Enchantress, Debonair, Cavalcade, Br. Enchantress. Standards: Wh. Mistletoe, Golden Mistletoe, Pink Mistletoe, Br. Mistletoe.
Dec. 15-24	July 2	4 A	ug. 14	Oct. 2		Pompons: Seafoam, Priscilla, Vesper, Brocade. Standards: Yel. Mefo, Mefo, Jean Elizabeth, Thanksgiving Pink, Mrs. Roy.
	July 2	1 A	ug. 11	Sept. 26		Pompons: Sunnyside, Golden Jane, Yel. Cordova, Cordova, Valencia, Dk. Pk. Valencia, Anemone Valencia, Apricot Valencia, Yolanda. Standards: Golden Pearson, Imp. Yel. Chatt., Golden Mrs. Ross, Chattanooga, Oak Leaf, Gladys Pearson.
	July 1	8 A	ug. 8	Sept. 20		Pompons: Yel. Cameo, Omega, Cameo, Yukon, Riviera, Enchantress, Debonair, Br. Enchantress.
	July 1		ug. 4	• • •		Pompons: Vibrant, Dec. Gold, Yel. Garza, Garza Sup. Standards: Imp. Tobin's Yellow, Smith's Late White.
			ly 29	· · · ·	Sept. 6	Pompons: Yel. Snow, Snow, Revelation.
Dec. 25- Jan. 4	July 2		ug. 15	Sept. 30	* * *	Pompons: Yel. Cameo, Omega, Vibrant, Cameo, Yukon, Riviera, Debonair.
Jan. 5-14	July 1 Aug.		ug. 7 ug. 23	Oct. 11		Pompons: Yel. Snow, Snow, Revelation. Pompons: Yel. Cameo, Omega, Vibrant, Cameo, Yukon, Riviera, Debonair.
J 7 1 1	July 2		ug. 14	Sept. 27		Pompons: Yel. Snow, Snow, Revelation.
Jan. 15-24	Aug.		ug. 30	Oct. 21		Pompons: Yel. Cameo, Omega, Vibrant, Cameo, Yukon, Riviera, Debonair.







To Flower	Plant	Pinch	Lights Off	Shade	Varieties
	Aug. 1	Aug. 22	Oct. 7		Pompons: Yel. Snow, Snow, Revelation.
Jan. 25- Feb. 4	Aug. 17	Sept. 7	Oct. 31	• • •	Pompons: Yel. Cameo, Omega, Vibrant, Cameo, Yukon, Riviera, Debonair.
	Aug. 8	Aug. 29	Oct. 17		Pompons: Yel. Snow, Snow, Revelation.
Feb. 5-14	Aug. 24	Sept. 14	Nov. 11		Pompons: Yel. Cameo, Omega, Vibrant, Cameo, Yukon, Riviera, Debonair.
	Aug. 15	Sept. 5	Oct. 28		Pompons: Yel. Snow, Snow, Revelation.
Feb. 15-24	Sept. 4	Sept. 25	Nov. 27		Pompons: Sunnyside, Golden Jane, Yel. Cordova, Cordova, Valencia, Dk. Pk. Valencia, Anemone Valencia, Apricot Valencia, Yolanda.
	Sept. 1	Sept. 22	Nov. 21		Pompons: Yel. Cameo, Omega, Vibrant, Cameo, Yukon, Riviera, Debonair.
	Aug. 23	Sept. 13	Nov. 7	• • •	Pompons: Yel. Snow, Snow, Revelation.
Feb. 25- Mch. 4	Sept. 12	Oct. 3	Dec. 7		Pompons: Sunnyside, Golden Jane, Yel. Cordova, Cordova, Valencia, Dk. Pk. Valencia, Anemone Valencia, Apricot Valencia, Yolanda.
	Sept. 7	Sept. 28	Dec. 1		Pompons: Yel. Cameo, Omega, Vibrant, Cameo, Yukon, Riviera, Debonair.
	Aug. 29	Sept. 19	Nov. 17		Pompons: Yel. Snow, Snow, Revelation.
Mch. 5-14	Sept. 18	Oct. 9	Dec. 15		Pompons: Sunnyside, Golden Jane, Yel. Cordova, Cordova, Valencia, Dk. Pk. Valencia, Anemone Valencia, Apricot Valencia, Yolanda.
	Sept. 13	Oct. 4	Dec. 9		Pompons: Yel. Cameo, Omega, Vibrant, Cameo, Yukon, Riviera, Debonair.
	Sept. 4	Sept. 25	Nov. 25		Pompons: Yel. Snow, Snow, Revelation.
Mch. 15-24	Sept. 29	Oct. 20	Dec. 31		Pompons: Tally-Ho, Seafoam, Priscilla, Vesper, Brocade, Bittersweet.
	Sept. 24	Oct. 15	Dec. 25	• • •	Pompons: Sunnyside, Golden Jane, Yel. Cordova, Cordova, Valencia, Dk. Pk. Valencia, Anemone Valencia, Apricot Valencia, Yolanda.
	Sept. 21	Oct. 12	Dec. 19		Pompons: Yel. Cameo, Omega, Cameo, Yukon, Riviera, Debonair.
	Sept. 11	Oct. 2	Dec. 5		Pompons: Yel. Snow, Snow, Revelation.
Mch. 25- April 4	Oct. 6	Oct. 27	Jan. 10	• • •	Pompons: Tally-Ho, Seafoam, Priscilla, Vesper, Brocade, Bittersweet.
	Oct. 2	Oct. 23	Jan. 4	• • •	Pompons: Sunnyside, Golden Jane, Yel. Cordova, Cordova, Valencia, Dk. Pk. Valencia, Anemone Valencia, Apricot Valencia, Yolanda.
	Sept. 28	Oct. 19	Dec. 29		Pompons: Yel. Cameo, Omega, Vibrant, Cameo, Yukon, Riviera, Debonair.
April 5-14	Oct. 19	Nov. 9	Jan. 27	• • •	Pompons: Barcarole, Pixie, Yel. Bushnell, Shasta, Wh. Mensa, Lakme, Rev. Bushnell, Linda Lou, Mrs. Bulkeley, Masterpiece, Br. Masterpiece, Cassandra.
	Oct. 14	Nov. 4	Jan. 21	• • •	Pompons: Princeton, Tally-Ho, Seafoam, Priscilla, Vesper, Brocade, Bittersweet.
	Oct. 9	Oct. 30	Jan. 14	Jan. 14	Pompons: Sunnyside, Golden Jane, Yel. Cordova, Cordova, Valencia, Dk. Pk. Valencia, Anemone Valencia, Apricot Valencia, Yolanda.
April 15-24	Nov. 8	Nov. 29	Feb. 11	• • •	Pompons: Gold Coast, Golden Herald, Yel. Arcadia, Mary L. Hall, Pinocchio, Arcadia, Pink Dot.
	Oct. 31	Nov. 21	Feb. 6	Feb. 6	Pompons: Barcarole, Pixie, Yel. Bushnell, Shasta, Wh. Mensa, Lakme, Rev. Bushnell, Linda Lou, Mrs. Bulkeley, Masterpiece, Br. Masterpiece, Cassandra.
	Oct. 22	Nov. 12	Jan. 31	Jan. 31	Pompons: Princeton, Tally-Ho, Seafoam, Priscilla, Vesper, Brocade, Bittersweet.
	Oct. 17	Nov. 7	Jan. 25	Jan. 25	Pompons: Sunnyside, Golden Jane, Yel. Cordova, Cordova, Valencia, Dk. Pk. Valencia, Anemone Valencia, Apricot Valencia, Yolanda.
April 25- May 4	Nov. 28	Dec. 19	Feb. 26	• • •	Pompons: Pristine, Capt. Cook.
	Nov. 21	Dec. 12	Feb. 21	Feb. 21	Pompons: Gold Coast, Golden Herald, Yel. Arcadia, Mary L. Hall, Pinocchio, Arcadia, Pink Dot.
	Nov. 15	Dec. 6	Feb. 16	Feb. 16	Pompons: Barcarole, Pixie, Yel. Bushnell, Shasta, Wh. Mensa, Lakme, Rev. Bushnell, Linda Lou, Mrs. Bulkeley, Masterpiece, Br. Masterpiece, Cassandra.
	Nov. 6	Nov. 27	Feb. 10	Feb. 10	Pompons: Princeton, Tally-Ho, Seafoam, Priscilla, Vesper, Brocade, Bittersweet.





# FOR FLORISTS



To Flower	Plant	Pinch	Lights Off	Shade	Varieties
May 5-14	Dec. 12	Jan. 2	Mch. 8	Mch. 8	Pompons: Pristine, Minong, Capt. Cook.
	Dec. 5	Dec. 26	Mch. 3	Mch. 3	Pompons: Gold Coast, Golden Herald, Yel. Arcadia, Mary L. Hall, Pinocchio, Arcadia, Pink Dot.
	Nov. 27	Dec. 18	Feb. 25	.Feb. 25	Pompons: Barcarole, Pixie, Yel. Bushnell, Constellation, Sunray, Shasta, Wh. Mensa, Lakme, Rev. Bushnell, Linda Lou, Masterpiece, Mrs. Bulkeley, Cassandra, Br. Masterpiece.
	Nov. 20	Dec. 11	Feb. 20	Feb. 20	Pompons: Princeton, Tally-Ho, Seafoam, Priscilla, Vesper, Brocade, Bittersweet.
May 15-24	Dec. 25	Jan. 15	Mch. 18	Mch. 18	Pompons: Pristine, Minong, Capt. Cook.
	Dec. 18	Jan. 8	Mch. 13	Mch. 13	Pompons: Gold Coast, Golden Herald, Yel. Arcadia, Mary L. Hall, Pinocchio, Arcadia, Pink Dot.
	Dec. 12	Jan. 2	<b>M</b> ch. 8	Mch. 8	Pompons: Barcarole, Pixie, Yel. Bushnell, Constellation, Sunray, Shasta, Wh. Mensa, Lakme, Rev. Bushnell, Linda Lou, Masterpiece, Mrs. Bulkeley, Cassandra, Br. Masterpiece.
May 25- June 4	Jan. 8	Jan. 29	<b>M</b> ch. 28	Mch. 28	Pompons: Pristine, Minong, Capt. Cook.
•	Jan. 1	Jan. 22	Mch. 23	Mch. 23	Pompons: Gold Coast, Golden Herald, Yel. Arcadia, Mary L. Hall, Pinocchio, Arcadia, Pink Dot.
	Dec. 25	Jan. 15	Mch. 18	<b>M</b> ch. 18	Pompons: Barcarole, Pixie, Yel. Bushnell, Constellation, Sunray, Shasta, Wh. Mensa, Lakme, Rev. Bushnell, Linda Lou, Masterpiece, Mrs. Bulkeley, Cassandra, Br. Masterpiece.
June 5-14	Jan. 24	Feb. 14	April 8	April 8	Pompons: Pristine, Minong, Capt. Cook.
	Jan. 17	Feb. 7	April 3	April 3	Pompons: Gold Coast, Golden Herald, Yel. Arcadia, Yel. Daisy, Mary L. Hall, Pinocchio, Arcadia, Pink Dot, Oct. Pink.
	Jan. 10	Jan. 31	<b>M</b> ch. 29	Mch. 29	Pompons: Barcarole, Pixie, Yel. Bushnell, Constellation, Sunray, Shasta, Wh. Mensa, Lakme, Rev. Bushnell, Linda Lou, Masterpiece, Mrs. Bulkeley, Cassandra, Br. Masterpiece.
June 15-24	Feb. 7	Feb. 28	April 18	April 18	Pompons: Pristine, Minong, Wh. Jewell, Jewell, Caroline Yosick, Capt. Cook.
	Jan. 31	Feb. 21	April 13	April 13	Pompons: Gold Coast, Golden Herald, Yel. Arcadia, Yel. Daisy, Yel. Dot, Mary L. Hall, Pinocchio, Arcadia, Pink Dot, Oct. Pink.
	Jan. 24	Feb. 14	April 8	April 8	Pompons: Barcarole, Pixie, Yel. Bushnell, Constellation, Sunray, Shasta, Wh. Mensa, Lakme, Rev. Bushnell, Linda Lou, Masterpiece, Mrs. Bulkeley, Cassandra, Br. Masterpiece.
June 25- July 4	Feb. 22	Mch. 15	April 28	April 28	Pompons: Pristine, Minong, Wh. Jewell, Jewell, Caroline Yosick, Capt. Cook.
	Feb. 15	Mch. 8	April 23	April 23	Pompons: Gold Coast, Golden Herald, Yel. Arcadia, Yel. Daisy, Yel. Dot, Mary L. Hall, Pinocchio, Arcadia, Pink Dot, Oct. Pink.
	Feb. 7	Feb. 28	April 15	April 18	Pompons: Barcarole, Pixie, Yel. Bushnell, Constellation, Sunray, Shasta, Wh. Mensa, Lakme, Rev. Bushnell, Linda Lou, Masterpiece, Mrs. Bulkeley, Cassandra, Br. Masterpiece.
July 5-14	Mch. 8	Mch. 29	May 5	May 8	Pompons: Pristine, Minong, Wh. Jewell, Jewell, Caroline Yosick, Capt. Cook.
	<b>M</b> ch. 1	Mch. 22	April 25	May 3	Pompons: Gold Coast, Golden Herald, Yel. Arcadia, Yel. Daisy, Yel. Dot, Mary L. Hall, Pinocchio, Arcadia, Pink Dot, Oct. Pink, Jessie.
	Feb. 22	Mch. 15	April 15	April 28	Pompons: Barcarole, Pixie, Yel. Bushnell, Constellation, Sunray, Nuggets, Shasta, Wh. Mensa, Lakme, Rev. Bushnell, Dk. Pk. Bulkeley, Cassandra.
July 15-24	Mch. 20	April 10	May 5	May 18	Pompons: Pristine, Minong, Wh. Jewell, Jewell, Caroline Yosick, Capt. Cook.
	Mch. 14	April 4	April 25	May 13	Pompons: Gold Coast, Golden Herald, Yel. Arcadia, Yel. Daisy, Yel. Dot, Mary L. Hall, Pinocchio, Arcadia, Pink Dot, Oct. Pink, Jessie.
	Mch. 8	Mch. 29	April 15	May 8	Pompons: Barcarole, Pixie, Yel. Bushnell, Constellation, Sunray, Nuggets, Shasta, Wh. Mensa, Lakme, Rev. Bushnell, Dk. Pk. Bulkeley, Cassandra.
July 25- Aug. 4	Mch. 31	April 21	May 5	May 28	Pompons: Pristine, Minong, Wh. Jewell, Jewell, Caroline Yosick, Capt. Cook.
	Mch. 25	April 15	April 25	May 23	Pompons: Gold Coast, Golden Herald, Yel. Arcadia, Yel. Daisy, Yel. Dot, Mary L. Hall, Pinocchio, Arcadia, Pink Dot, Oct. Pink, Jessie.







## Crop Schedule—continued

To Flower	Plant	Pinch	Lights Off	Shade	Varieties
July 25- Aug. 4	<b>M</b> ch. 20	April 10	April 15	<b>M</b> ay 18	Pompons: Barcarole, Pixie, Yel. Bushnell, Constellation, Sunray, Nuggets, Shasta, Wh. Mensa, Lakme, Rev. Bushnell, Dk. Pk. Bulkeley, Cassandra.
Aug. 5-14	April 12	May 3	May 5	June 8	Pompons: Pristine, Minong, Wh. Jewell, Jewell, Caroline Yosick, Capt. Cook.
	April 7	April 28	April 25	June 3	Pompons: Gold Coast, Golden Herald, Yel. Arcadia, Yel. Daisy, Yel. Dot, Mary L. Hall, Pinocchio, Arcadia, Pink Dot, Oct. Pink, Jessie.
	April 1	April 22	April 15	<b>M</b> ay 29	Pompons: Barcarole, Pixie, Yel. Bushnell, Constellation, Sunray, Nuggets, Shasta, Wh. Mensa, Lakme, Rev. Bushnell, Dk. Pk. Bulkeley, Cassandra.
Aug. 15-24	April 23	May 14	May 5	June 18	Pompons: Pristine, Minong, Wh. Jewell, Jewell, Caroline Yosick, Capt. Cook.
	April 18	May 9	April 25	June 13	Pompons: Gold Coast, Golden Herald, Yel. Arcadia, Yel. Daisy, Yel. Dot, Mary L. Hall, Pinocchio, Arcadia, Pink Dot, Oct. Pink, Jessie, Seneca.
	April 12	May 3	April 15	June 8	Pompons: Barcarole, Pixie, Yel. Bushnell, Constellation, Sunray, Nuggets, Shasta, Wh. Mensa, Lakme, Rev. Bushnell, Dk. Pk. Bulkeley, Cassandra.

# Crop Schedule for Pot Plant Varieties

To Flower	Last Pinch	Shade	Varieties
Aug. 25- Sept. 4	June 28	June 28	Standards: Gold Lode, Celestra, Mrs. Kidder, Yellow Ambassador, Christina, Ambassador, Early October, Justrite.
	June 23	June 23	Pompons: Granite State, White Izola, Pk. Izola, Br. Izola, Red Izola. Standards: Blazing Gold, Golden Glory, Snow White, J. W. Prince, Ivanhoe.
	June 18	June 18	Pompons: Little America, Thyra, Red Melba. Standards: Cardonia, Imp. Honey Dew, Yellow Beauty, Richard Mandel, Queen of Pinks.
Sept. 5-14	July 9	July 9	Standards: Gold Lode, Celestra, Mrs. Kidder, Yellow Ambassador, Christina, Ambassador, Early October, Justrite.
	July 4	Jul <b>y</b> 4	Pompons: Granite State, White Izola, Pk. Izola, Br. Izola, Red Izola. Standards: Blazing Gold, Golden Glory, Snow White, J. W. Prince, Ivanhoe.
	June 29	June 29	Pompons: Little America, Thyra, Red Melba. Standards: Cardonia, Imp. Honey Dew, Yellow Beauty, Richard Mandel. Queen of Pinks.
Sept. 15-24	July 19	July 19	Standards: Gold Lode, Celestra, Mrs. Kidder, Yellow Ambassador, Christina, Ambassador, Early October, Justrite.
	July 14	July 14	Pompons: Granite State, White Izola, Pk. Izola, Br. Izola, Red Izola. Standards: Blazing Gold, Golden Glory, Snow White, J. W. Prince, Ivanhoe.
	Jul <b>y</b> 9	July 9	Pompons: Little America, Thyra, Red Melba. Standards: Cardonia, Imp. Honey Dew, Yellow Beauty, Richard Mandel, Queen of Pinks.
	July 4	July 4	Pompons: Sunray, Orchid Beauty, Gypsy, Red Rolinda, Legal Tender. Standards: Bonaffon De Luxe, Helen Frick, Thanksgiving Pink.
Sept. 25- Oct. 4	July 29	July 29	Standards: Gold Lode, Celestra, Mrs. Kidder, Yellow Ambassador, Christina, Ambassador, Early October, Justrite.
	July 24	July 24	Pompons: Granite State, White Izola, Pk. Izola, Br. Izola, Red Izola. Standards: Blazing Gold, Golden Glory, Snow White, J. W. Prince, Ivanhoe.
	July 19	July 19	Pompons: Little America, Thyra, Red Melba. Standards: Cardonia, Imp. Honey Dew, Yellow Beauty, Richard Mandel, Queen of Pinks.
	July 13	July 13	Pompons: Sunray, Orchid Beauty, Gypsy, Legal Tender. Standards: Bonnaffon De Luxe, Helen Frick, Thanksgiving Pink.
	July 8	July 8	Pompons: Yellow Cordova, White Yuletide, Cordova, Beautiful Lady, Standards: Sungold, R. M. Calkins, White Frick, Bronze Frick.





## FOR FLORISTS



## Crop Schedule—Pot Plant Varieties

To Flower	Last Pinch	Shade	Varieties
Oct. 5-14	Aug. 8	Aug. 8	Standards: Gold Lode, Celestra, Mrs. Kidder, Yellow Ambassador, Christina, Ambassador, Early October, Justrite.
	Aug. 3	Aug. 3	Pompons: Granite State, White Izola, Pk. Izola, Br. Izola, Red Izola, Standards: Blazing Gold, Golden Glory, Snow White, J. W. Prince, Ivanhoe.
	July 29	July 29	Pompons: Little America, Thryra, Red Melba. Standards: Cardonia, Imp. Honey Dew, Yellow Beauty, Richard Mandel, Queen of Pinks.
	July 23	July 23	Pompons: Sunray, Orchid Beauty, Gypsy, Red Rolinda, Legal Tender. Standards: Bonnaffon De Luxe, Helen Frick, Thanksgiving Pink.
	July 18	July 18	Pompons: Yellow Cordova, White Yuletide, Cordova, Beautiful Lady. Standards: Sungold, R. M. Calkins, White Frick, Bronze Frick.
Oct. 15-24	Aug. 18	• • •	Standards: Gold Lode, Celestra, Mrs. Kidder, Yellow Ambassador, Christina, Ambassador, Early October, Justrite.
:	Aug. 13	Aug. 13	Pompons: Granite State, White Izola, Pk. Izola, Br. Izola, Red Izola. Standards: Blazing Gold, Golden Glory, Snow White, J. W. Prince, Ivanhoe.
	Aug. 8	Aug. 8	Pompons: Little America, Thyra, Red Melba. Standards: Cardonia, Imp. Honey Dew, Yellow Beauty, Richard Mandel, Queen of Pinks.
	Aug. 2	Aug. 2	Pompons: Sunray, Orchid Beauty, Gypsy, Red Rolinda, Legal Tender. Standards: Bonnaffon De Luxe, Helen Frick, Thanksgiving Pink.
	July 28	July 28	Pompons: Yellow Cordova, White Yuletide, Cordova, Beautiful Lady. Standards: Sungold, R. M. Calkins, White Frick, Bronze Frick.
Oct. 25- Nov. 4	Aug. 23	•••	Pompons: Granite State, White Izola, Pk. Izola, Br. Izola, Red Izola. Standards: Blazing Gold, Golden Glory, Snow White, J. W. Prince, Ivanhoe.
	Aug. 18	Aug. 18	Pompons: Little America, Thyra, Red Melba, Standards: Cardonia, Imp. Honey Dew, Yellow Beauty, Richard Mandel, Queen of Pinks.
	Aug. 12	Aug. 12	Pompons: Sunray, Orchid Beauty, Gypsy, Red Rolinda, Legal Tender. Standards: Bonnaffon De Luxe, Helen Frick, Thanksgiving Pink.
	Aug. 6	Aug. 6	Pompons: Yellow Cordova, White Yuletide, Cordova, Beautiful Lady. Standards: Sungold, R. M. Calkins, White Frick, Bronze Frick.
Nov. 5-14	Aug. 28	• • •	Pompons: Little America, Thyra, Red Melba. Standards: Cardonia, Imp. Honey Dew, Yellow Beauty, Richard Mandel, Queen of Pinks.
	Aug. 23	Aug. 23	Pompons: Sunray, Orchid Beauty, Gypsy, Red Rolinda, Legal Tender. Standards: Bonnaffon De Luxe, Helen Frick, Thanksgiving Pink.
	Aug. 17	Aug. 17	Pompons: Yellow Cordova, White Yuletide, Cordova, Beautiful Lady. Standards: Sungold, R. M. Calkins, White Frick, Bronze Frick.
Nov. 15-24	Sept. 1	•••	Pompons: Sunray, Orchid Beauty, Gypsy, Red Rolinda, Legal Tender. Standards: Bonnaffon DeLuxe, Helen Frick, Thanksgiving Pink.
	Aug. 27	Aug. 27	Pompons: Yellow Cordova, White Yuletide, Cordova, Beautiful Lady. Standards: Sungold, R. M. Calkins, White Frick, Bronze Frick.
Nov. 25- Dec. 4	Sept. 5	• • •	Pompons: Yellow Cordova, White Yuletide, Cordova, Beautiful Lady. Standards: Sungold, R. M. Calkins, White Frick, Bronze Frick.

#### A GOOD POT MUM PROGRAM FOR RETAIL GROWERS

Following program for growing pot Mums has been worked out from past experience by Hans Zoerb of the La Crosse Floral Co. It should be a good starting place for any retail grower in selection of varieties, dates for potting, pinching and shading. The La Crosse Floral pot Mums have been uniformly good. All are

grown 3 rooted cuttings in a 6 inch pot.

1ST SHADING starts July 3 (Cuttings received May 10).

Granite State, Blazing Gold, Gypsy.

2nd pinch June 13 1st pinch May 23 3d pinch July 3

In bloom early September.

2ND SHADING starts July 17 (Cuttings received May 20). Blazing Gold, Yellow Beauty, Bonnaffon Deluxe, Gypsy, Granite

1st pinch June 11 2nd pinch June 29 3d pinch July 17

In bloom mid-September. 3D SHADING starts August 10 (Cuttings received June 10). Yellow Beauty, Bonnaffon Deluxe, Little America, Gypsy, Queen of Pinks.

1st pinch June 21 2nd pinch July 11 3d pinch Aug. 10 In bloom mid to late October.

NO SHADING (Cuttings received July 5)

	1st pinch	2d pinch	3d pinch
Blazing Gold	July 12	Aug. 1	Aug. 21
Cardonia	July 12	Aug. 1	Aug. 31
Bonnaffon Deluxe	July 12	Aug. 1	Sept. 3
Sun Gold	July 12	Aug. 1	Sept. 6
Granite State	July 12	Aug. 1	Aug. 21
Gypsy	July 12	Aug. 1	Aug. 28
Queen of Pinks	July 12	Aug. 1	Aug. 28
Beautiful Lady	July 12	Aug. 1	Sept. 6
Smith's Late White	July 12	Aug. 1	Sept. 13
In bloom at natural seaso	n (refer to	catalog listings)	•



# Gro. g. Ball

## FOR FLORISTS



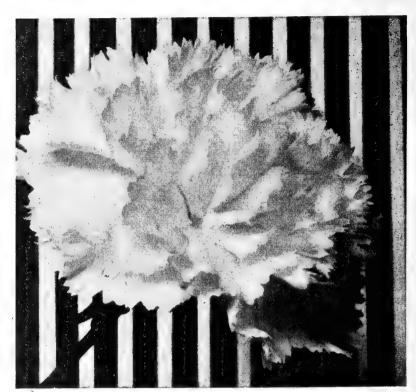
# Carnation Cuttings

The necessity of clean, healthy Carnation cuttings is fully as important to the grower as Mum cuttings that he can depend upon. Because we are cut flower growers ourselves, as well as dealers in Carnation cuttings, we realize how vital good stock is to our customers.

With this thought foremost in our mind we have spared no effort to obtain the very best possible sources of supply for our Carnation cuttings. However, we cannot stress too strongly the importance of ordering early if you want real quality. For example, the new variety "Netta", with practically no advertising, has sold 400,000 cuttings and no more will be available until the winter of '48-'49.

If your stock is disease infested or if you've been wanting to try several of those better new varieties right now is the time to give us your order. We'll give it our very best attention.

Minimum order 100 of a variety. 250 cuttings of a variety at the 1000 rate. Prices subject to change.



## New Introductions

Netta. (Restricted). Color, delicate flesh pink. Large full flower on long stiff stems. It flowers early and seldom splits. 400,000	Pric	Cuttings e per 1000
cuttings sold by July 1st—sold out for balance of this season. Place your orders now for 1948-49 delivery	\$20.00	\$150.00
Virginia; production equal to Virginia. (Restricted). Limited quantity	20.00	150.00

# Standard Varieties WHITE

	Rooted C Price 100	_
<b>Arundel.</b> Similar in form to Olivette. Many growers prefer it to Olivette	12.00	100.00
Casablanca (Patented). Large, fragrant, stiff stems	20.00	150.00
Colonel Blimp. New white, originated with Peter Beuerlein's Sons	20.00	150.00
Mercury. Pure white, sport of Giant Fisher; stem like Fisher, good shipper, free flowering, fine keeper. No restrictions	15.00	125.00
Northland. A large fragrant white. Most in demand of all whites today	15.00	125.00

Olivette. One of the better whites. It is noted for steady winter production, sym- metrical and spicy flowers, and sturdy		
medium length stems	8.50	75.00
Patrician. A good large white	8.50	75.00
White Briry. Fine sport of John Briry but freer flowering. (Restricted)	15.00	125.00

# LIGHT PINK Roofed Cuttings Price per 100 1000

Hercules Virginia. Giant light pink sport of Virginia, having the growing qualities of its parent	15.00	125.00
St. Louis Pink. Excellent free flowering pink	8.50	75.00
Spirit of St. Louis. (Restricted until Dec. 1949). An early, long stemmed variety of the Virginia color, producing a heavy continuous crop	17.50	150.00
Virginia. Noted for its steady winter production, lack of splitting, and its clean stems which require very little disbudding	8.50	75.00

### SALMON PINK

(Detented) A quality colmon pink

Stems are long and sturdy, the flowers large and the calyx is strong								
Ida. Sport of Eleanor; light pink, a shade deeper than its parent	8.50	75.00						
<b>Pollyanna.</b> (Patented). A steady winter producer of average length; sturdy stems	15.00	125.00						
Salmon Virginia. A good salmon sport of Virginia	12.00	100.00						



state clearly name, address, etc. to be used).



## FOR FLORISTS



# for '47-'48 Season

MEDIUM PINK	5	<b>6</b>			Cuttings	
	Rooted Cuttings Price per			Price per 100 1000		
Dorothy Napier. (Patented). The flowers are	100	1000	No. 16 Red. Color same as King Cardinal. Quality far superior	15.00	125.00	
large and very full, and the calyx does not split. Production compares favorably with all varieties of this color and quality	20.00	150.00	Red Charm. (Restricted until May 1948). A good red sport with all the fine qualities of its parent	20.00	150.00	
Peter Fisher. Well known for its profitable productiveness and clear fringed flowers  Pink Treasure. (Patented). A medium or	8.50	75.00	<b>Red Seth Parker.</b> Sport. Color little deeper than King Cardinal. Has same habit and qualities as Seth Parker. Limited quantity.	12.00	100.00	
rose pink flower of large size and full appearance	15.00	125.00	<b>Tom Knipe.</b> (Patented). The flower is very full and large with serrated petals. The calyx does not split, propagates easily and			
Rosalie. (Patented). A very excellent Carnation when well grown. The flowers are			produces well	20.00	150.00	
medium to large, similar in color to the old Ward and good keepers	20.00	150.00	Victory Red. An improved King Cardinal, but little deeper red	12.00	100.00	
Virginia Rose. Well liked wherever Virginia is popular. It is much deeper in color than Ward. Very uniform in production and	0.50	75.00	William Sim. (Patented). Vivid red seedling. Supply limited	20.00	150.00	
quality, an excellent keeper	8.50	75.00	CRIMSON			
DARK PINK			C. W. Weld. Dark red. Clean healthy grower;	12.00	100.00	
Chalfant. (Restricted). A very good deep pink. Introduced by Peter Hellberg of Chalfant, Pa. Good color; good size	20.00	150.00	Olympic. (Restricted until Dec. 1948). A strong growing crimson seedling, color of C. W. Weld		150.00	
Dark Pink Fisher. Similar to Peter Fisher from which it sported. Color is a good dark pink and does not fade in spring	8.50	75.00	Seth Parker. (Patented). Rich bright crimson. The flowers are larger than other varieties in this class, stems excellent, splitting	20.00	130.00	
John Briry. One of the brightest dark pink Carnations now grown. It is a first quality flower but not a heavy producer. Does best			unknown. Flowers can be harvested for the Christmas season	20.00	150.00	
Virginia Miller. The dark pink Virginia		125.00	Beuerlein's Crimson. Resembles Woburn but is much earlier and freer	8.50	75.00	
Canup's Pride. (Restricted). Cross of Baums			YELLOW			
Supreme and King Cardinal. Good stem, free flowering. Dark cerise pink; almost cherry in color	20.00	150.00	Miller's Yellow. The best yellow	12.00	100.00	
RED			MISCELLANEOUS			
King Cardinal. (Patented). A consistently			Golden Wonder. Yellow variegated	8.50	75.00	
good variety with a production record that is as glowing as its flower is appealing	12.00	100.00	Pelargonium. The color is a mottled effect of crimson-wine on a white base; the blooms are large and the stems average length with strength to carry the flowers gracefully	15.00	125.00	
Avoid those hundreds of broken Carnations	every	year with	Scarlet King. A sport of Pelargonium with more vigor and brighter, lighter coloring		100.00	
the new "CARNATION PACK." This new flat pack eliminates nearly all breakage, saves packing time, allows about 20%		Sylvia (Restricted). White variegated		150.00		
more bunches per box and presents your Carnations more effectively on the market.  PRICES F.O.B. New York			<b>Frosted Patrician.</b> A lovely sport of Patricia characteristics of the parent plant. The	ın, havir	ng all the	
			overlaid with a pink flaking making a very	attractive	e variega-	
1000\$22.50 per M 10,000 5000 20.50 per M 50,000 Printing in one color on face of pack \$3.00	17.7	75 per M	tion. The variety won numerous awards Carnation Society Exhibition in Chicago. Th large and full. Stems are long and sturdy. and bushy. Some splitting occurs. Keeping	e flowers Plants	are very	
In amounts of 10,000 or more, one color prin state clearly name, address, etc. to be used	ting tree	e. (Please	Our supply of this variety is very limited. \$8.50 per 100 \$75.00 pe	r 1000		

**\$8.50** per 100







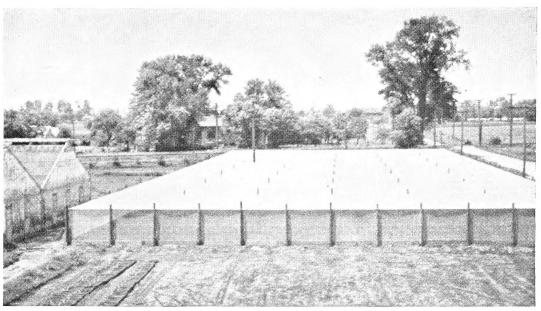
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## STORM KING CLOTH HOUSES

When You Construct That Cloth House Use This Double-Reinforced STORM KING CLOTH

THESE NEW FEATURES WILL CONVINCE YOU THAT THIS CLOTH DOES PROVE MOST ECONOMICAL IN THE LONG RUN

Available February 1st.



Instead of six to nine spaces of reinforcement to the square yard, we have placed 16 9-inch reinforced squares to each square yard, giving you that necessary added tensile strength to withstand heavy winds and rain storms. The sidewalls are woven 6-foot widths. A 33-foot house will have ten seams in the top. Where the STORM KING CLOTH is sewed together, the heavy selvedge has been rolled and stitched with heavy thread. A new patented aluminum clasp to

fasten the cloth to the baseboard every nine inches at the intersection of the heavy selvedge and reinforcement assures proper anchorage. This method also eliminates rotting from dampness.



#### AMERICAN BLACK-OUT DRILL CLOTH

Lightproof and Waterproof for Shading and Sterilizing

AVAILABLE NOW!

Order Your Supply

#### PRICES BLACK-OUT CLOTH F.O.B. MILLS

\$133.75	yards	square	250
265.00	yards	square	500
525.00	yards	square	1000

#### PRICES STORM KING CLOTH F.O.B. MILLS

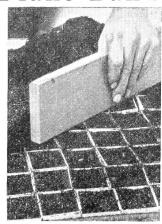
250	square	yards\$	52.50	1000	square	yards <b>\$195.00</b>
500	square	yards	102.50	5000	square	yards 950.00

## Fill Your Growing Needs

## Ball Better Plant Bands



EASY TO OPEN Bands come completely as-sembled. A putty knife quickly opens them.



EASY TO FILL Lots quicker and more eco-nomical than filling small pots one at a time.

Don't forget those Wood Veneer Flats that hold 12 smaller size bands for retail plant sales. Write for full information and samples of bands or flats.

• Made of specially prepared decay-resisting veneer • Double galvanizedwire stapled to really hold • Easy to open; come completely assembled • Easy to fill; lots faster than small pots one at a time • Transplanting insurance; plants take hold more quickly and with less loss • Better growth; a band holds more soil than a pot of equal size—no root binding • Uniform moisture; close fitting wood bands dry out less rapidly than clay pots • Bands come packed in valuable greenhouse flats at no extra cost to you.

#### BALL BETTER PLANT BANDS

Ball Better Bands are made of decay-resisting wood veneer double-stapled with galvanized wire. Aeration and drainage of these bands are important points. Prices are F.O.B. our midwestern factory. Specify whether to ship by express or freight. Bands shipped in units of 2000 each, packed in 2 rot-resistant greenhouse flats. Please order in units of 2000 only. Smaller quantities, in corrugated boxes at 10% additional. Write for special prices on large quantities. Remember—a flat with every thousand bands.

				These sizes			
Size	2000-unit	Size	1000-unit	packed in units	following sizes		
2×2	\$ 8.20	3x4	\$ 6.70	of 250	Size Per 1000		
13/4×21/	8.40	4x3	6.70	Size Per 1000	3 <b>x</b> 4 <b>\$ 3.25</b>		
2x21/2	9.40	4×4	7.75	6x6 <b>\$21.00</b>	4×3 <b>3.75</b>		
2x3	9.90	4x6	15.80	6x9 28.00	4×4 4.50		
21/2×21/	<b>10.20</b>				4x6 <b>5.90</b>		
$2\frac{1}{2} \times 3$	10.60				6x6 9.90		
3x3	11.50				6x9 15.80		

#### BIRD FIBER PLANT BANDS

Bird Fiber Bands are of waterproof composition which requires less frequent but more careful watering. Sold in units of 1000 only. Prices F.O.B. East Walpole, Mass., or West Chicago, Ill. Quantity Discounts: 1000 to 49,000 net; 50,000 to 200,000 5%; over 200,000 10%.

		$1\frac{1}{2}x^{2}\frac{1}{2}$	$1\frac{3}{4}$ x $2\frac{1}{2}$	$2x2\frac{1}{2}$	2x3	$2\frac{1}{2}x3$	3 <b>x3</b>	3x4
Vita-Band	40		\$4.25	\$4.70	\$5.05	\$5.50	\$6.30	\$7.35
Vita-Band	10	\$2.70	2.90	3.25	3.75	4.15	4.55	5.90



Offered by us in '46, it has proven the last word in hard, paper white Pompons. As choice for shading as for normal late October flowering. The stock we offer of Pinocchio and all other varieties is from plants that were inspected by us last fall and showed no indications

Price \$6.00 per 100; \$60.00 per 1000. Geo. G. Ball.