



Baï FloraPlant®

**MixMasters  
Growing Guide**



Propagate your own liners, or order MixMasters 2.0 multi liners for ease of transplanting and production. Use any size liner from a 207 to a 105 tray (20mm – 25mm). Transplant sets of 2 to 3 liners into one hole: the cuttings start out with the same spacing as a multi stick liner, so they grow together in the same blended manner (but without the propagation challenges that multi stick liners present). Or put one Mix Masters 2.0 multi liner in each hole.

MixMasters 2.0 multi liners come pretreated for great finished performance. Or by using liners with individual components, you can pretreat aggressive cuttings and avoid the shrink that can occur with multi stuck liners when one component dies. Either way, your combinations get a stronger start because each component gets its best treatment in propagation.

Propagating your own individual component liners reduces complexity for your sticking crew and makes propagation easier all around. MixMasters 2.0 liner takes the worry out of propagation and reduces the amount of transplanting you need to do.

Propagate your own liners, or order MixMasters 2.0 multi liners from any Ball FloraPlant affiliated rooting station. Follow the steps outlined in this guide for bright and bold color combinations that will wow your customers and drive sales. We do the trialing for you, so you know what you need to do up front for successful combinations.





### **Transplanting Using MixMasters 2.0 Multi Liners**

MixMasters 2.0 multi liners make transplanting easy, and give combos a great start for a strong finish.

Each multi liner has all three components in it, so you just have to transplant one liner per hole instead of three, saving you time.

Use three multi liners per 12" hanging basket, or one multi liner for 6" and gallons.

## Propagation Tips For Rooting Your Own Liners

Rooted liners can be ordered from rooting stations. If you wish to propagate the liners yourself, review the propagation culture for each crop in the Grower Facts sheets available at [www.ballfloraplant.com](http://www.ballfloraplant.com). Any size liner from a 207 – 105 tray (20mm – 25mm) can be used. Below are some general guidelines.

### **PGR:**

Follow crop specific guidelines given in Grower Facts at Ballhort.com. In general, we recommend using B-Nine spray at a rate of 1500 – 2500 ppm. Apply around 2 - 3 weeks after sticking (when cuttings are rooted and new growth is starting). We recommend you wait a week after application before shearing. Once rooted, liners should be moved to reduced temperatures until ready to transplant to minimize stretching. For maximum quality, liners should be sheared and have PGR applied prior to transplanting.

Petunias are aggressive components in mixed genus combinations. One option for control is a Bonzi drench to the liners prior to transplant. This will help prevent them from dominating the combination early in its development. Pre-trialing under your conditions is important when doing this, because using too much can stunt the plants. For the Sun Spun series, Black Velvet, Phantom, and Pinstripe, use a Bonzi .25 – 1 ppm drench. For the Suncatcher Series and Rhythm & Blues, use a Bonzi 1 – 2 ppm drench. Alternatively, petunia liners can be sprayed with a Sumagic 5 – 10 ppm spray prior to transplanting.

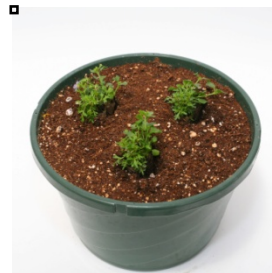




## Transplanting Using Individual Liners



1:  
Make three  
holes in soil, big  
enough to fit  
three liners.



3.  
Insert second  
component.



2:  
Insert first  
component.



4.  
Insert third  
component, water  
in pot.

## Growing To Finished Size

### Temperature:

Warm Crop Combinations:

Day: 72 – 78 F (22 – 26 C)

Night : 60 – 62 F (16 – 17 C)

Cool Crop Combinations:

Day : 62 – 68 F (16 – 20 C)

Night : 40 – 42 F (5 – 6 C)

### EC:

2.0 – 2.5

### pH:

Mixed Components: 5.8 – 6.2

Pure Calibrachoa or Petunia Mixes:

5.5 – 6.0

Mixes With Calibrachoa or Petunia: 6.0

### Fertilizer:

Use a complete fertilizer containing necessary major and macro nutrients, 200 – 250 ppm N.

### Media:

Use a well-drained, disease free, soilless medium with good aeration and a pH of 5.5 to 6.2.

### Crop Timing:

Average 9 – 11 weeks from transplant. Exact timing depends on the individual combination and treatments used during growing.

### PGRs:

For general applications, we recommend sprays of B-Nine 2500 – 5000ppm, or B-Nine 2500 / Cycocel 1000 ppm tank mix sprays. If you need stronger applications, you can use Sumagic sprays at 5 – 10 ppm. Be careful if using Sumagic on combos including Sutera or Calibrachoa, as both are very responsive to it. A Bonzi 3 – 5 ppm drench can be used as a finishing application when plants are at 75% finished size. How many PGR applications are needed will depend on your growing environment: use your best judgment. In general, expect to do one to two early spray applications and a finishing drench when the pots are at 75% finished size.



With combos using black type petunias (Black Velvet, Phantom, and Pinstripe), be conscious of which PGRs you use and what effect it will have on flower coloration. B-Nine is good for early applications on Phantom and Pinstripe, as it will enhance the star pattern, but don't use it on Black Velvet or partial stars may appear. For combos with Black Velvet, use Cycocel sprays at 500 – 750 ppm or Bonzi sprays at 2 – 5 ppm instead for early applications. For finishing applications, use Bonzi drenches on Black Velvet combos, but use Cycocel 500 – 750 ppm drenches on combos using Phantom or Pinstripe. Bonzi can cause the stars on Phantom and Pinstripe to decrease in size, so it should be avoided with combos using either variety.

Petunias are generally problematic in mixed genus combos, because of their aggressive vigor. Liners can be pretreated with a Bonzi drench as discussed in the propagation section of this guide. Alternatively, you can use spot applications of Sumagic spray at 5 – 10 ppm to help control them. Start 2 – 3 weeks after transplant, once liners get roots into the soil and new growth is starting to take off. Don't wait until the petunias start outgrowing the other components around them. Starting sooner is better.

#### **Pinching:**

Liners should be pinched or sheared prior to transplant. Additional pinches during finished growing is optional, but can be used to increase branching and to even out components. At 2 – 3 weeks after transplanting, you can do a light pinching to encourage good basal branching on all components, and slow down any components that may be starting to dominate the pot early on. At around 5 – 6 weeks after transplant, another light pinch can be used to make the plants fill out the pot more and to even out the growth of individual components. Additional pinches will add 2 – 3 weeks to your overall crop time.

Based on the combination's performance in your conditions, decide if you need additional pinching or not. If you are happy with the branching, and the components are growing together evenly, then additional pinching is likely not necessary. Additional pinching will increase the density of the growth, which restricts air flow through the heart of the plant. This increases the possibility of Botrytis, so preventative fungicide sprays or drenches should be used towards the end of the finished growing. Monitor your crop for Botrytis throughout the production cycle and take corrective action if it is discovered.

Secondary pinches on petunia are not recommended, because it will make the growth too dense. This will impede the other components from mixing with it, and increase the likelihood of you having issues with Botrytis. Use of spot applications of Sumagic is preferable to keep them controlled.

### General Comments:

Growing mixed combinations in this manner is part art and part science. Individual components will respond differently under different temperatures, light levels, and day lengths. As a result, the exact needs of each combination component will vary by location and season. Use early pinching and PGR applications to ensure that each component grows evenly with each other.

### Stages Of Finishing:

- 2 – 3 weeks after transplant, roots are to the edge of the pot and new growth is starting to take off. Now is the time for an early second pinch (if desired) and the first early PGR spray. With cool crop combos, wait until at least this point before reducing temperatures down to avoid stunted growth.



- 5 – 6 weeks after transplant, plants have filled out the pot. Now is the time to evaluate the combinations and decide if you want to do a second pinch to improve branching or even out the components. Now is also a good time for a second PGR spray application if needed. If additional pinching is not needed, then wait another 1 – 2 weeks and apply your finishing PGR drench.



- 9 – 11 weeks after transplant, pots are in full bloom and ready for consumers.





## **Mix Master**

### **Combination Specific Culture Tips**

#### **Pure Petunia Combos (Twinkle Toes / Candle Light / Betsy Ross / Raspberry Summer)**

A second pinch to these combos is definitely not needed. Doing so can make the growth too dense, which blocks air circulation and can encourage Botrytis. With any pure Petunia mixed combination, preventative fungicide drenches are a good idea once plants fill out the pot.

#### **High Voltage**

If you choose to do a second pinch on this combo, just pinch the Verbena. Voltage Yellow will branch well naturally and won't require the second pinch.

#### **Tropical Punch**

Calibrachoa Can-Can Orange is the variety to watch in this combination. It is a little more upright in habit than the two Cabaret varieties, so it may start growing above them early on in production. If you see branches growing up above the rest early on, you will want to pinch them even if you choose not to do a second pinch the two Cabaret varieties. Otherwise you may have a predominantly orange top to your mixed container. Pinching just the Can-Can Orange will give the two Cabaret varieties a chance to fill out so you have a uniform mix.

#### **Pixie Dust**

A PGR drench to just the Petunia liners prior to transplant will help prevent the Petunias from being too vigorous. If needed, you may want to do spot applications of PGR to the Petunias in this combo early on to give the Verbena a chance to fill out before the Petunias fill in the pot. If the Petunia fills out too fast, it can block the light to the Verbena and slow it down early on in production. If too much PGR is needed to keep the Petunias in check (which could cause an "over-PGR'd" look), then you can pinch back the Petunias. If you do so, try and pinch deep and remove whole branches, so the new growth isn't too dense (which increases the likelihood of Botrytis by restricting air flow). Once the roots are established, Petunias will bounce back quickly from a second pinch.

#### **Evening Gown**

It's best to avoid pinching the Gaura in this combination. Doing so can delay growth and increase the likelihood of the other two components outgrowing it. Once Gaura starts to flower, it will fill out on its own.

#### **Beach Baby**

A PGR drench to just the Sun Spun Yellow liners prior to transplant will help prevent the Petunia from being too vigorous. Lobelia Waterfall Blue is a little more sensitive to PGRs

then Sun Spun Yellow is. If you notice the Lobelia starting to look over-PGR'd, limit your future PGR applications and do spot applications to just the Petunia if necessary. Alternatively you can pinch back the Petunia, but do so deeply so you remove whole branches, so the new growth isn't too dense (which increases the likelihood of Botrytis by restricting air flow).

### **You're So Fresh!**

The one problem you may have with this combo is the Diascia flowering too early compared to the other components. If needed, you can do a light pinch on the Diascia to keep it growing vegetatively while the Lobelia and Voltage Yellow come into flower.

### **Orange Blush**

Coleus Lava Rose is more sensitive to temperature than the Calibrachoa and Euphorbia are. If you are growing a little cool, you may see the Calibrachoa and Euphorbia start outgrowing the Coleus. If that happens, you can do a second pinch on just the Calibrachoa and Euphorbia to help even the components out.

### **Sunny Side Up**

Doing a PGR drench to just the Sun Spun White liners prior to transplant is a good idea for this combo. If the Petunia does start to outgrow Voltage Yellow, you can do spot applications of PGR to just the Petunia. Or you can do a second pinch on just the Petunia. If you do a second pinch, do so deeply so you remove whole branches, so the new growth isn't too dense (which will increase the likelihood of Botrytis by restricting air flow).



### **Disclaimer**

All recommendations given here are only suggestions. Growers should use the information presented here as a starting point. Use your best judgment to adjust recommendations to fit your specific growing environment. Crop times will vary depending on the climate, location, time of year and greenhouse environmental conditions. Chemical and PGR recommendations are only guidelines. It is the responsibility of the applicator to read and follow all of the current label directions for the specific chemical being used in accordance with all regulations.

In North America, Ball FloraPlant products are distributed exclusively by Ball Seed Co., Ball Superior and ColorLink.

Phone: 800-879-BALL

Fax: 800-234-0370

[www.ballhort.com](http://www.ballhort.com)