

Ball FloraPlant Product Development®

Kerry Strobe

Ball FloraPlant, 710 Stanton Way, Arroyo Grande, California 93420

INTRODUCTION

Development of new products takes commitment of both time and resources. Every company has their own procedures for introducing new varieties. I am going to outline the general procedures used at Ball FloraPlant when developing a new cultivar. I am going to use the New Guinea *Impatiens* 'Celebration Neon Salmon' as an example to walk you through the steps from the original cross through retail sale.

GENERAL PROCEDURES FOR NEW CROP DEVELOPMENT

The Cross. The first step is choosing the parents and making the cross. The cross was made in July of 1998 and approximately 4 weeks later the mature seed was collected. Once all of the seed was collected the segregating population was grown. In January of 1999, 'Celebration Neon Salmon' was selected from the segregating population. A stock plant was then established to be used as a source of cuttings for the second step, trialing.

Trialing. Once the selection has been made, trialing begins as soon as possible. For 'Celebration Neon Salmon' the first trial was in April 1999. We conduct three greenhouse trials every year. Those trials are timed to bloom in September, December, and April. We use four to 12 plants of each cultivar in 4-inch pots for the trials. We conduct these trials in two locations, West Chicago, Illinois, and Arroyo Grande, California. We use a simple rating system along with notes to track the performance of each line.

Our rating system is based on a general rating of 1 to 5. This covers all aspects of the plant from flower size and color clarity, to habit, branching, and leaf size, to earliness and floriferousness. It is really an overall quality rating. We consider a 2 rating to be an average score and a 3 rating to be excellent. A 4 rating is outstanding and a 5 is considered perfect. Anything rated less than a 2 is unacceptable. The second part of the rating is a notes section where we write down anything that stands out in the trial.

In addition to greenhouse trials we conduct outdoor container trials at three locations. Outdoor container trials are conducted in Illinois, California, and Florida. Trials in Illinois and California are started in June and run through September. Two trials are conducted in Florida. A spring trial is started in March and the fall trial is started in October. The Florida trials are kept for 3 to 4 months. We also conduct smaller trials in Europe.

In October of 1999, 'Celebration Neon Salmon' was placed on our "Potential Introduction" list. This means that we will pay special attention over the next year as we trial it. During the next year we also send cuttings to our laboratory in West Chicago, Illinois. They test the plant for all viruses, bacteria, etc. They then establish the "Potential Introduction" in tissue culture (TC). The TC plants are then used to establish plants in super clean (certified stock) greenhouses.

From October 1999 to September 2000 'Celebration Neon Salmon' was trialed in

all of our trials. In September 2000, the decision was made to introduce 'Celebration Neon Salmon'. Once that decision is made photographs are taken for use in catalogues and other marketing materials. At the same time cuttings are taken from the plants in the certified stock greenhouse. These cuttings are sent to our production location in Costa Rica.

Ball FloraPlant has three production locations; Costa Rica, Guatemala, and Mexico. Guatemala and Mexico are primarily for geranium production with the majority of the spring plant material (all non geranium cultivars) being produced in Costa Rica.

Our staff in Costa Rica roots the cuttings sent from the certified stock greenhouses. These cuttings are grown into stock plants. These stock plants are then used to take cuttings to establish the production stock plants. All of this occurs in Fall 2000. Throughout this process periodic disease testing occurs to ascertain that we are retaining disease-free stock and therefore, we are shipping disease-free cuttings.

In the winter of 2000/2001 we also begin the plant patent process. Plants are grown with a control cultivar and data is taken to prove that the new cultivar is significantly different from the others that are available. We apply for U.S. and Canadian patents and usually European patents. In addition, patents may be applied for other areas including Asian and South American countries.

In April 2001 we will first show this cultivar to our sales force, customers, and industry reporters. We use the California Pack Trials as our first chance to showcase the new introductions for the year. Through the spring and summer of 2001, these new introductions will be showcased at other trade shows, such as, the Ohio Short Course. We use the 2001 season as a sampling year. Samples of the new introductions are provided to our sales force and gardenwriters. We also send many cultivars to public trials. Last year this included 29 locations throughout the country. Many university trials are included (Penn State University, University of Georgia, Colorado State, etc.).

In late Summer and Fall of 2001 the sales force will begin booking orders for the Spring 2002 season. There may be very limited fall production for Sunbelt area retail sales.

Also in the Summer/Fall of 2001, stock plant buildup for the next production season begins. This means that plants are taken from TC established in Certified Stock greenhouses, these plants are grown, cuttings are taken, and these are sent to Costa Rica. Costa Rica establishes clean stock and these are the plants used for production in Spring 2002. Every year clean stock plants are established. A stock plant remains in the production area for one season only.

In Winter and Spring 2002 the growers receive the cuttings from the production facility in Costa Rica. All cuttings sent to the growers are certified disease-free. In Spring and Summer 2002 plants first appear in retail outlets.

Every season this process repeats beginning with new product development and the commitment of both time and resources.