

Bedding Plant Scheduling

Overview

- Receiving an order
- Ordering supplies
- Creating a schedule
- Calculating space and labor requirements
- Maintaining a crop
- Completing an order

Introduction

Accurate scheduling is required to grow plants to marketable size at the right time of year

- Poor scheduling may cause growers to have:
 - Small, non-flowering plants at market
 - Overgrown plants, already flowered plants
 - Empty benches with several weeks of selling season ahead
- Many factors can influence finishing time:
 - Average temperature
 - Photoperiod
 - Use of plant growth regulators
 - Finish container sizes
- Many resources available to assist with scheduling:
 - Ball Seed: Production guides (<http://www.ballseed.com/QuickCulture/ProductionGuides/>)
 - FlowersOnTime (http://floriculturealliance.org/research_outputs.asp?id=17&cid=2&type=)
 - Ornamental Bedding Plants Chart – Ball Seed
 - Scheduling Greenhouse Crops – UMass Amherst
 - <https://ag.umass.edu/greenhouse-floriculture/fact-sheets/scheduling-greenhouse-crops>

Receiving an order

Orders are generally made several months before intended market dates

- Define what products are needed
 - Varieties
 - Annuals
 - Perennials
 - Vegetables and herbs



- Finish container sizes
 - Cell packs, 4" pots, 1-5 gal containers
 - Mixed baskets

Product sizes



- Size required at sale
- Flowering vs foliage

Ordering Supplies

After receiving an order, figure out the necessary materials

- Spreadsheets will help maintain records and keep you organized
 - Help with calculating necessary materials
 - Keep track of production and inventory
 - Use preexisting or make your own
- Quantity of each variety needed
 - Account for expected loss (+15%), overage
 - Account for germination % of specific variety
 - Number of seeds vs gram weight
- Amount of plug liners, flats, inserts, pots, etc.
 - Plug liners and inserts will hold a certain amount of plants
 - 11" x 21", standard size
 - May be composed of packs



- Round up from required number, can't have half of a liner

- Order enough pots for overage plants
- Order enough flats to hold all of the pots
- Amount of seed needed for each variety
 - Based on overage, germination %, etc
 - Differences in number of seeds per plug
 - Differences in the number of plugs per transplant
- Tags, flags, other labeling material
 - Extremely important to label material as it is planted/transplants
 - Don't mix up material

Creating a Schedule

It is best to work backwards from the intended market date

- Typical market dates
 - Spring
 - Holidays
- Easier to work in terms of weeks, rather than exact days
- Julian calendar can help
 - Find what week your sale date is in
 - Work backwards based on week number
- Crops will generally have a range of time for germination,
 - Depends on location and the environmental controls available
 - Spring conditions different around the country
 - Light interception, heat, etc
 - Contact the seed company for assistance
 - Refer to other guides

Calculating Space Requirements

Available space will set the amount of plants produced

- Identify space available for production
 - Area of bench space
 - Size of plug trays
 - Size of pots, number of pots per flat
- Group varieties with similar requirements together
 - Optimal temperature ranges
 - Photoperiod

- Adjust sowing/transplanting times to accommodate



Calculating Labor Requirements

Labor is the biggest input cost of most operations

- Time required per event
 - Sowing
 - Transplanting
- Consistent amount of labor per week is most efficient
 - Easier to manage week to week
 - No need to acquire additional staff
- Mechanization can reduce labor needs
 - Planters
 - Automated irrigation



