

Plant Propagation

What's new,
and a few tips
across the years

We'll visit an old greenhouse again...



1950s Vegetable and Flower Transplant Culture

Choosing from a limited number of cultivars
Starting from seeds in homemade flats
Transplanting into compost beds
“Dibbling” up mature seedlings
Wrapping in newspaper for sale to gardeners

Growing transplants in soil beds



Wooden Flats and Dibble Boards



Things Change

Seed germination goes from open flats, to row-trays, to plugs of all sizes (50 to 640 per flat).
Automation for faster and more efficient seeding.
Number of varieties available explodes.
Faster and more uniform germination through research.
Dislodging and transplanting equipment.



Other Seed Issues and Changes

Germination percentage
 Seed storage
 Vernalization & other dormancy treatments
 Growing with DIF
 Germ. Temperatures, RZH (Root Zone Heating)
 Primed seed, IG (Improved Germination) seed
 Pelleted seed



Now, how about plants from cuttings?

Gardening trends change:
 Transplant sizes
 Consumer choices in species, height, and color
 More marketing outlets from garden centers to the “big box” stores
 Gardeners became outdoor “instant color” designers

The rise of “vegetative” annuals

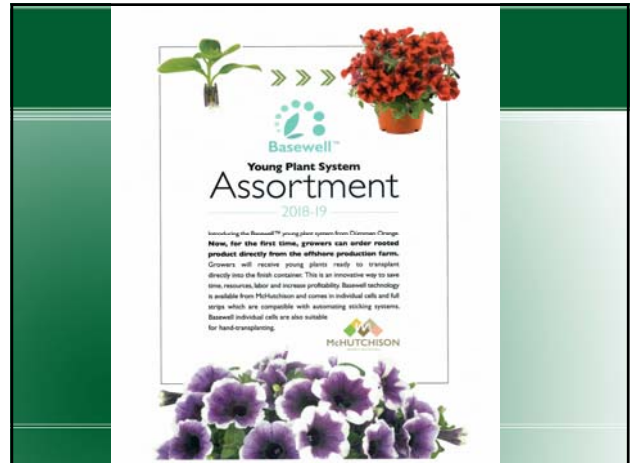
Growing from cuttings rather than from seeds
 Uniform production
 Improved disease and/or drought resistance
 Improved growth habit (look at petunias)
 Larger number of species, colors, growth habits
 Many are patented or copyrighted cultivars

Propagation points to consider

Plug size & depth (deep cells for better drainage)
 Temperature, light, humidity, and sanitation
 Bottom heat (RZH) beneficial for both seed and cutting production
 Water pH is VERY critical, especially when using PGRs (Plant Growth Regulators)
 Water pH also a large factor in fertilizing (20-3-19 Petunia FeED a perfect example)

Rooted or Unrooted Cuttings?

Many great sources of both RC and URC material, often from “off-shore” facilities
Use a reputable broker
Carefully inspect material for insects or disease
Be prepared with proper media, plugs, and mist if required
Try some of the recent technologies



Handling Unrooted Cuttings



Mist chamber with many species



Quick rooting with little or no loss



Other propagation methods



*Problems
(and some of my "pet peeves")*

