



# **Herbaceous Ornamentals**

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# **Perry's 3-step Program**

(for more information)

## **1. Perry's Perennial Pages**

**[perrysperennials.info](http://perrysperennials.info)**

**note: >leaflets, >articles, >plants**

## **2. Herbaceous Garden Plants Online**

**--see link from above, also CE**

**--free course notes drawing!—survey**

## **3. References (handout)**

# tonight's approach

- As a MG YOU are now the expert! Will need to answer many questions
- Too much, so focus on 7 key topics
- WILL cover main points of each
- VIT =“interactive” among all sites
- Meet others in groups, share expertise

# How We'll Learn

- **10-12 minutes** to break into groups at each site
- **3-4 people per group**
- **choose a question or two, work out an answer(s)**
- **be ready to present if called**
- **reconvene, answer questions with 3-4 points in 3-4 minutes**

## Q1. hardiness

- 1. Allen Bush and wife Rose ordered some perennials from a catalog. The plants were supposed to be hardy, but many died overwinter. How do you explain their losses?**

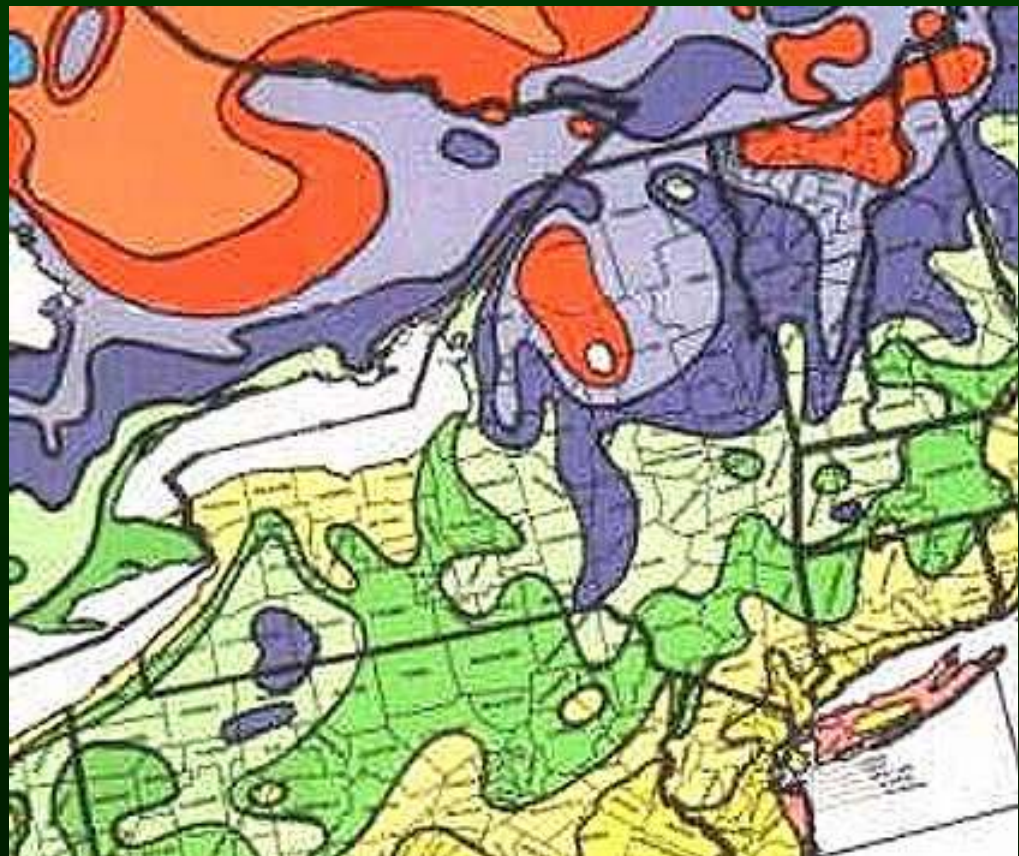
# Q1. Hardiness

- **zones—definition (“averages”)**
- **several maps (USDA, ArborDay)**
- **“macro” climate**
- **“meso” climate—yard, neighborhood, town**
- **“micro” climate—part of yard, near building, slope, example my home**

## Average Annual Minimum Temperature

Temperature (F)	Zone
Below -50	1
-45 to -50	2a
-40 to -45	2b
-35 to -40	3a
-30 to -35	3b
-25 to -30	4a
-20 to -25	4b
-15 to -20	5a
-10 to -15	5b
-5 to -10	6a
0 to -5	6b
5 to 0	7a
10 to 5	7b
15 to 10	8a
20 to 15	8b
25 to 20	9a
30 to 25	9b
35 to 30	10a
40 to 35	10b
40 +	11

## USDA Hardiness zones (cold), NY/Northeast



Courtesy Cornell Coop Extension

# other hardiness factors

- **extremes**
- **fluctuations**
- **depth and length of cold**
- **genetics**
  - **cultivar (cultivated variety)**
  - **ecotype (provenance)**
  - **buy local (listing on perrysperennials)**

# ground temperatures

- **vs air temperatures for woody plants**
- **vary slowly, with season, how**
- **killing temperatures, research on**
  - **see perrysperennials**
- **snow best insulator**
  - **depth key, more accurate than zones**

# hardiness and culture

- **mulches: organic, only 2in. good**
- **prevents fall and spring wide fluctuations when plants more tender**
- **covers (roses, commercial)**
- **fertility (unlike woodies, late is good)**
- **time of planting, esp. on clay soils**
  - **prevent frost heaving, mid Sept latest**

## Q2. Roses

**2. At the Vermont Flower Show, Mr. Perfection asks you about roses. He wants to grow them, but doesn't want them to die. How can he do this? He's especially concerned about our winters here, as he just moved here from Bermuda.**

## Q2. Roses

- **perrysperennials website**
  - plants, hardiness trials at Hort Farm
- **rose classes: 1867, 'La France'**
  - 15 old before, 10 modern after
- **1/4 hybrids seem die avg winter (warmer areas), more in colder**
  - grow as annuals? worth it for flowers

## Shrub rose series least to most hardy

- **David Austin--English**
- **Meidiland--French**
- **Parkland—Canada, plains**
- **Explorer—Canada, Quebec/Ontario**

# Roses--culture

- **winter covers (straw vs soil vs covers)**
- **pruning**
- **pests (beetle traps)**
- **diseases (tolerance, cleanliness, cultivars)**
- **“own root” vs grafted/budded**
  - **suckers, invasive understocks**

## Q3. No flowers

**3. Ms. Busy calls to ask why her perennials she bought this year failed to flower. What happened? Should she demand her money back or sue the nursery?**

## Q3. No flowers—“annuals”

- **fertility, many of new “vegetative”**
  - need HI fertilizer, slow release plus liquid
- **biennial (2 years seed to flower)**
- **none, foliage**
- **light, too little**
- **animal/child damage (also perennials)**

# No flowers--perennials

- juvenile, most bloom second year on
- already bloomed (“forced”)
- fertility, too much, all leaves
- light, too little
- light, daylength changed
- depth (peony)
- frost killed buds (spring bulbs)

**No flowers  
herbaceous “non-factors”**

- **alternate flowering—woodies like trees**
- **pruning—cut flowers off, eg rhododendrons or lilacs**
- **temperature/hardiness—mainly woodies, herbaceous weak or die**

## Q4. Annuals/perennials

**4. Sven Annualison and wife Marigold are tired of planting annuals each year and want to replace them with perennials for brilliant color all summer. How do you help?**

## Q4. Annuals vs. Perennials

- **defn. annuals, perennials, biennials**
- **pros and cons:**
  - **time of bloom**
  - **cost vs replacing**
  - **harder to combine perennials well**
  - **more variety with perennials**
  - **specialty groups with perennials**

# flower design

- **mix annuals and perennials for easy, continuous color**
  - 3 week average perennial bloom
- **pick perennials for each season**
  - visit nursery every 3-4 weeks (see PPP)
- **consider adjacent plants**
- **repetition through beds, landscape**

# flower culture

- **improve soil organic matter**
  - mulches, manures, compost yearly
- **fertility**
  - perennials, organic slow release, low
  - annuals, high fertility (esp. vegetative)
- **soil moisture: generally well-drained**
  - water-sorb products (containers)
- **light: preference vs tolerance**

# Dividing perennials

- **May need division if:**
  - few to no flowers, hollow centers, crowded stems, leggy tall stems
- **Fork method, pie-shaped wedges**
- **Varies with plant, culture**

**The Well-tended Perennial Garden,**  
**Aust**

# popular perennials

- **spring: bulbs, primrose, lungworts**
- **summer, sun: peonies, phlox, daylily, bee balm**
- **summer, shade: hosta, coralbells (or sun if moisture), astilbe (moist)**
- **fall: sedum, aster, goldenrod (not allergies)**

# invasives

- **problem: into natural areas/where not wanted, displace natives/desired**
- **function of BEHAVIOR not origin**
  - ie don't confuse this and native
  - all plants have a reason, a place
- **seed (mallows) vs root (ribbon grass)**
- **function of location**
  - **miscanthus grass seeds in warm climates**
  - **vinca (perennial periwinkle), depends**

## Q5. slopes

**5. Joe and Jane Doolittle have a steep slope behind their house they'd like to keep from washing into their outdoor Jacuzzi during rains. How do you advise them to accomplish this?**

## Q5. Slopes and Erosion

- **may be place for root invasives**
  - **KEEP from waterways, contained**
- **crown vetch**
- **grass-perennials-shrubs natural succession, interplanting**
- **grass conservation mix ok**
- **hydroseed, mat mulch**

# difficult slopes

- **steep: rocks, terrace with timbers/walls**
- **wet: raised beds, wet-tolerant perennials/shrubs**
- **shade: groundcovers**

## 6. wildflowers

**6. Lucy Loosestrife want to plant an acre wildflower meadow, and comes to you for advice on how to do this. What's your advice?**

## Q6. Wildflowers--spring

- “ephemerals”—why
- nursery grown not collected, how tell
- New England Wildflower Society
  - ([www.newfs.org](http://www.newfs.org))
- may be expensive, hard to establish
  - eg double dormancy seed
- “purist” vs “effect”
  - Armitage’s Native Plants

# wildflowers--summer

- meadows: tough to establish, nature does with millions of seeds
- realize first step in “succession” to shrubs then trees, “purist” vs “effect”
- non-natives, invasives
- wildflower=perennial=weed, depending

# meadows--steps

- 1. excellent seedbed as for lawn**
- 2. sun, good soil**
- 3. proper mix, natives, diversity  
grasses and flowers**
- 4. first year: well-watered, weeded,  
mow 6in.**
- 5. future: mow one ft. 2<sup>nd</sup> year, fall of  
subsequent or burn (permit)**

## Q7. deer/ mammals

**7. Jane Doe is having all her plants either eaten by deer, or dislodged by ground creatures. What can you recommend to her?**

## Q7. deer and mammals

- deer a problem in most of country
- severity depends on population, food
- if hungry: exclusion only solution
- best: prevent, training, deterrents prior to feeding, along borders/on paths
- poor eyes, good smell, good hearing, maternal, cautious of danger, quick learners

# deer repellents

- **may work one place, not another**
  - preferences, training, hunger
  - why “resistant” plants not foolproof
- **best to mix 2 or more, rotate or move**
- **mask sense danger, if not hungry  
just unpalatable**

**Deerproofing Your Yard and Garden,  
Rhonda M. Hart, Storey**

# deer deterrents/repellents

- **smell: soap (not on shrubs), urines, blood products**
- **taste: pepper, concoctions**
- **noise: radio**
- **light: motion light**
- **touch: motion sprinkler (also for dogs)**
- **dogs: why may not work**

# deer barriers

- **electric fence, single strand, peanut butter bait in foil**
- **two single strands line/wire flagged, or fences, 5-6 ft apart**
- **fences: wire mesh (8ft), fishing line with flags (every 2ft up), triangular in x-view (inverted V)**

## other mammals

- **dogs and cats: screening on ground, repellents**
- **rabbits: low fencing, in ground**
- **mice/moles/voles: snap traps, beware poison bait dangers**
- **repellents often non-effective**
- **bulbs, planting: crushed shells/rocks**

# Congratulations!

- You now have the main points on the main questions dealing with herbaceous ornamentals you may get as the “expert”
- keep on learning from initial 3-steps
- have fun in rest of course, and as MG
  - have a safe trip home!