

Friends of
Laurelwood Arboretum
Connecting People with Nature



Happy, Healthy Hydrangeas

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Purpose

Promoting good hydrangea health through
proper placement
pruning
feeding

Uses

Questions



Uses in the landscape

Specimen plant, focal point

Container plant

Hedge

Screen

Accent tree

Specimen
H. macrophylla



Container

H. macrophylla 'Endless Summer'



Hedge

H. arborescens 'Incrediball'



Standard, or tree form *H. paniculata*



Introduction

Most plants are hardy in this area

Wayne, NJ is USDA zone 6b (-5^o to 0^oF)

Easy to grow – low maintenance

Mostly disease and insect-free plants

Beautiful summer and early fall blooms

Great cut flowers, bouquets

Great dried flowers

(can be dyed or spray painted)

Insects and diseases

Aphids, leafminer, mites, twig borer, Japanese beetle

soapy water

insecticidal soap

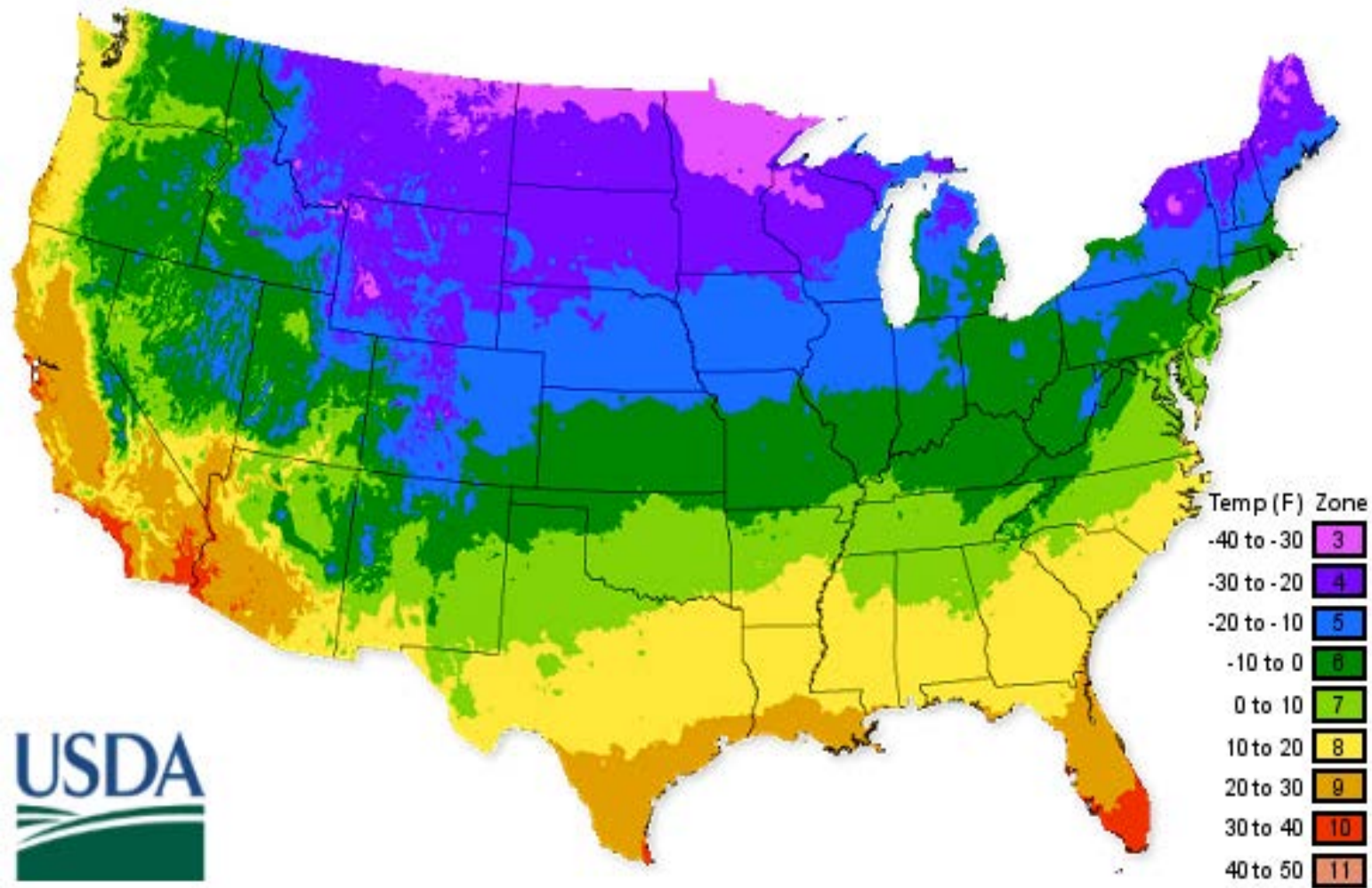
neem oil

Leaf spot, powdery mildew, rust

no crowding

good sanitation – rake up leaves

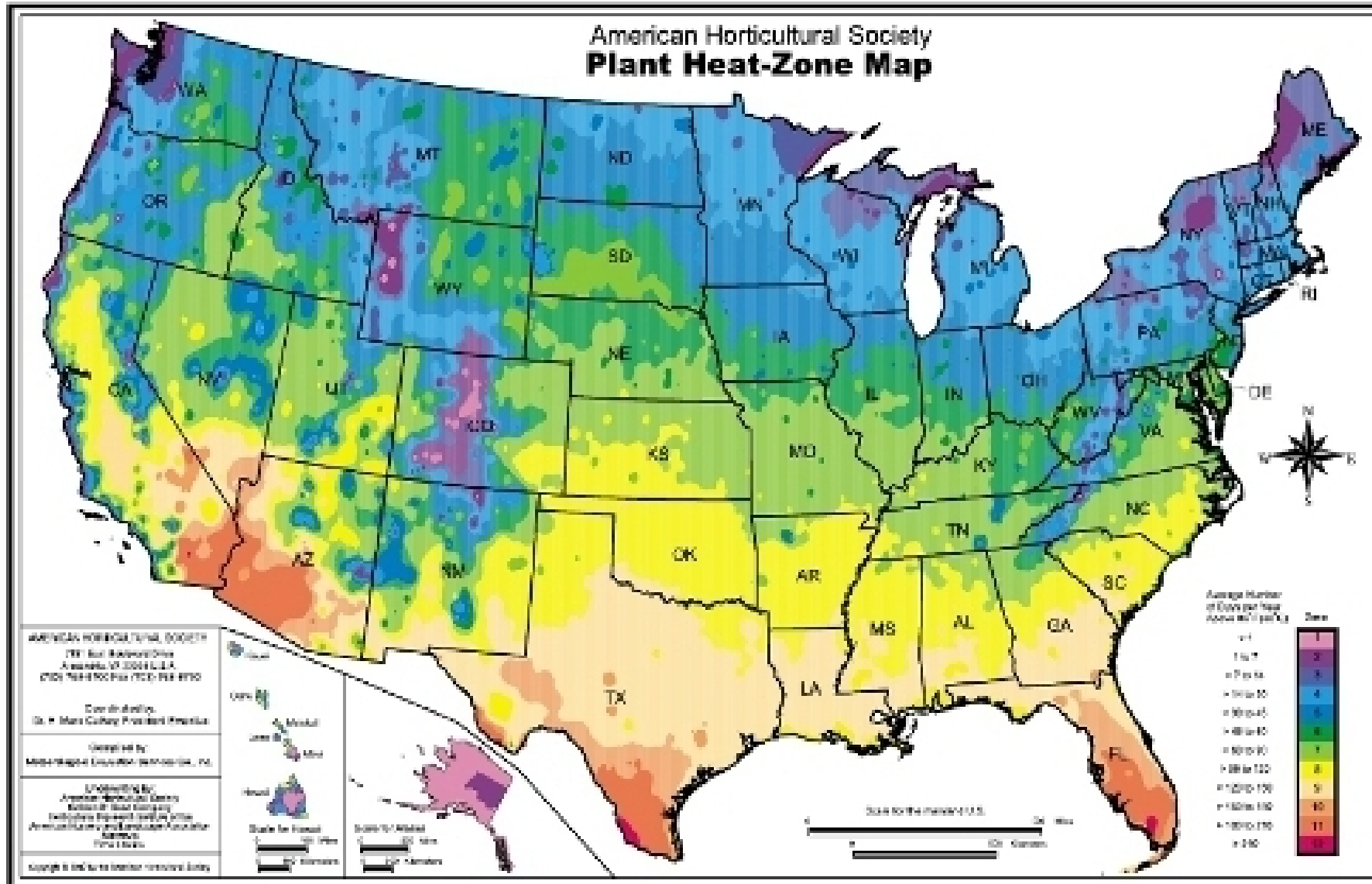
USDA plant hardiness zones (cold)



NJ hardiness zones (4)



AHS plant heat zones



NJ heat zones (4)



4 heat zones

Temperature over 86°F

4 = 14-30 days

5 = 30-45 days

6 = 45-60 days

7 = 60-90 days

Plant tag = cold, heat

Tulip 3-8, 8-1

Hydrangea species - 23

Hydrangea anomala petiolaris = climbing

H. aborescens = smooth

H. paniculata = panicle/peegee

H. quercifolia = oakleaf

H. serrata = mountain

H. macrophylla = big leaf

mophead

lacecap

Hydrangea anomala petiolaris - climbing

Zone 4-9

Moist, well-drained soil

Full sun to part shade

A vigorous vine that can reach 60'

White flat-topped (lacecap) flowers in July and August

Flowers on new wood

Prune to control height, which can reach 60 feet

Exfoliating, cinnamon-colored bark

H. anomala petiolaris –
climbing hydrangea



Hydrangea arborescens – smooth

Zone 3-9

Moist, well-drained soil

Part shade to full sun with irrigation

3-5' tall and wide

Leaves heart-shaped with 1-3" petiole

White mophead flowers July to August, age to green then brown

Flowers on new wood

Prune to 12 inches in late winter or early spring

Native to the U.S.

H. arborescens cultivars

'Annabelle'

'Grandiflora'

'Incrediball'

'Haas Halo' (lacecap)

'Eco Pink Puff' (pink)

'Invincibelle Ruby'



Invincibelle Ruby



Incrediball

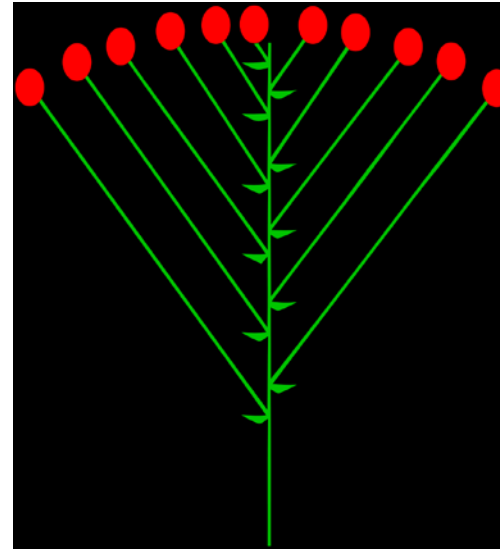
Annabelle



Lacecap vs. mophead/hortensia flowers

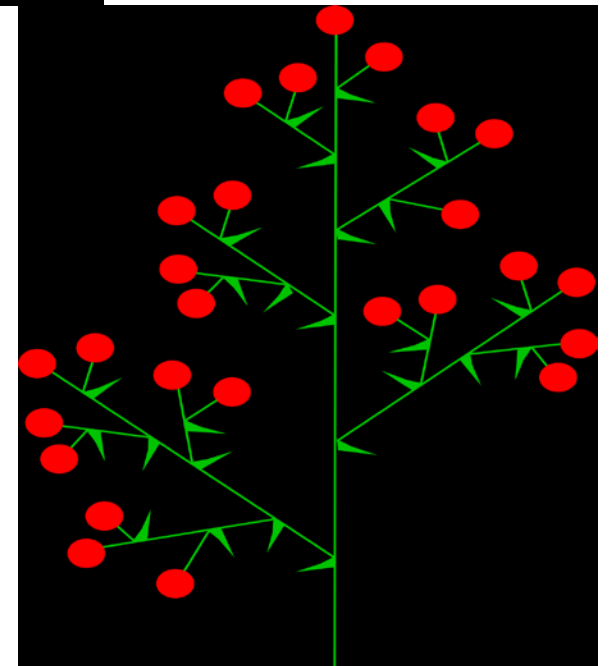
Lacecap

Central disc of small fertile flowers
surrounded by showy sterile flowers
arranged in a corymb (flat head)



Mophead

Mostly sterile flowers
covering small fertile flowers
arranged in a panicle (round or cone)



Hydrangea paniculata – panicle/peegee

Zone 3-9

Moist, well drained soil

Full sun to part shade

8-15' tall and wide

Leaves narrow, joined x 3 at stem with ½-1" petiole

White cone-shaped flowers July to September, age to pink

Slight fragrance

Flowers on new growth

Prune to 12 inches in late winter or early spring

H. paniculata cultivars (50+)

'Grandiflora' (PG, shrub or tree) – 18"

'Pee Wee' – 8" on 5x5' shrub

'Limelight' – 12"

'Tardiva' – late flowers (September)

'Vanilla Strawberry'

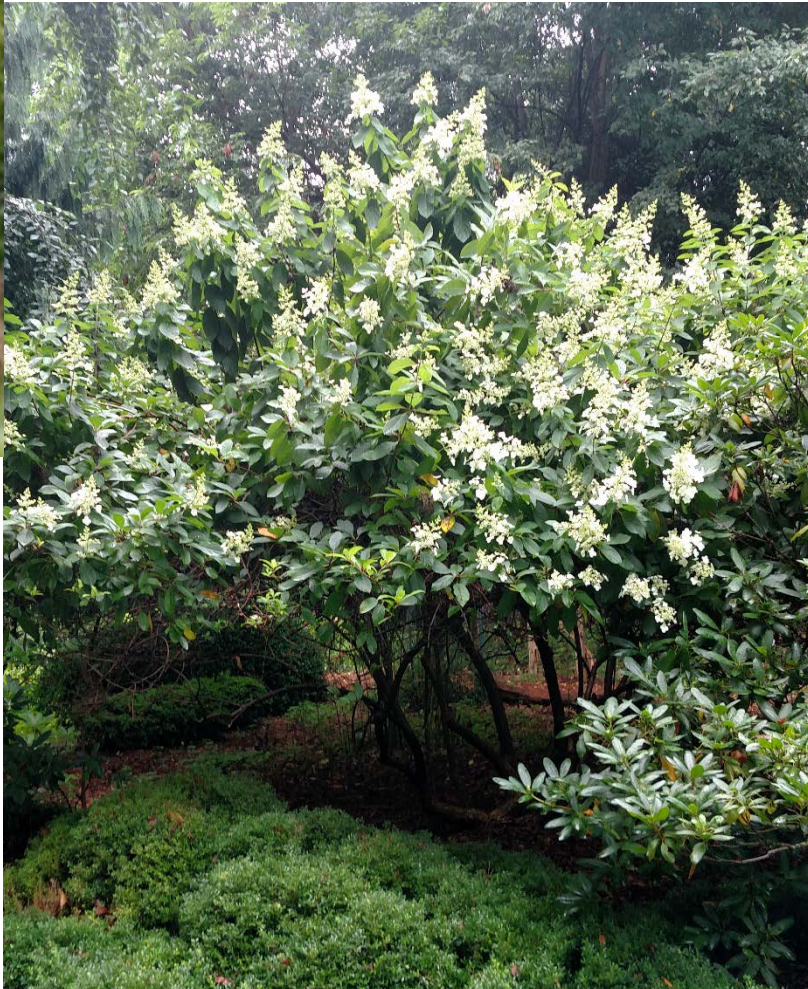


Grandiflora

Vanilla Strawberry



Tardiva



Limelight



Hydrangea quercifolia – oakleaf

Zone 5-9

Well-drained soil

Full sun to part shade

5-8' tall and wide

White cone-shaped flowers in July to September, age to pink

Flowers on old wood (last year's)

Prune minimally after blooming and prune out dead wood in spring

Native to the southern U.S.

Exfoliating bark

Beautiful fall leaf color

H. quercifolia cultivars

'Alice' – 10" flowers on 12'x12' shrub

'Gatsby Gal'

'Gatsby Moon'

'Ruby Slippers' – 9" flowers on 4'x4' shrub

'Pee Wee' - 4" flowers on 3'x3' shrub

'Snowflake' – 12" double flowers on 7' shrub



Alice



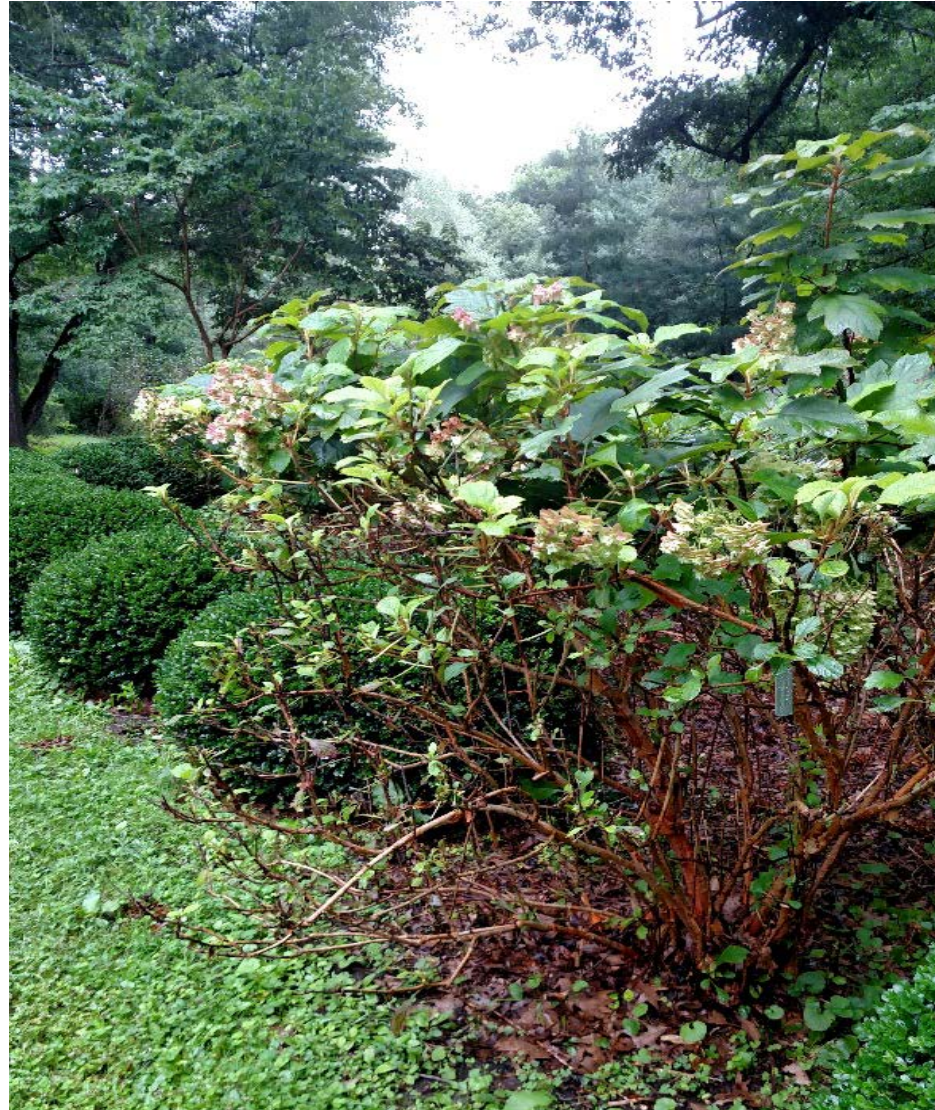
Snowflake



Ruby Slippers



Laurelwood oakleaf hydrangea



Hydrangea serrata – mountain

Zone 5-9

Moist, well drained soil

Full sun to part shade

3-5' tall and wide

Blue or pink lacecap flowers in July to September

Flowers on old wood (last year's)

Pruning not necessary

Prune out dead wood in spring

H. serrata 'Tuff Stuff' – mountain hydrangea



H. serrata cultivars (75+)

'Blue Billow'

'Blue Deckle' - R

'Tuff Stuff' – R

'Geisha Girl' - white



© Proven Winners® ColorChoice®



Tuff Stuff



Geisha Girl

Hydrangea macrophylla – big leaf, French or florists hydrangea

Zone 6-9

Moist, well-drained soil

Full sun to part shade

4-8' tall and wide

Mophead and lacecap-type flowers

Flowers July to September

Flowers on old wood (last year's)

Flower color can be influenced by soil pH

Prune minimally after blooming

Prune out dead wood in spring

H. macrophylla - big leaf hydrangeas



H. macrophylla

Susceptible to cold winters and spring frosts

Coarse-looking in winter

Keep moist or plant will wilt

Needs 6 hours of sunlight (east)

Does NOT need pruning

Aluminum availability influences flower color

Aluminum more available at lower soil pH

blue flowers at low soil pH

pink flowers at higher soil pH

H. macrophylla cultivars (500+)

'Nikko Blue' - mophead

'Blue Wave' – lacecap (cold hardy)

'White Wave' – lacecap (cold hardy)

Variegated leaf cultivars –

 'Variegata' - lacecap

 'Lemon Wave' - lacecap



Nikko Blue



Blue Wave



Pink Wave



Variegata

Remontant

Reblooming

'Endless Summer' (1998)

'Blushing Bride'

'Wedding Gown' (double lacecap)

'Double Delights Star Gazer' (double lacecap)

'Everlasting Revolution'

'Mini Penny'

'Pistachio'

'Twist-n-Shout' (lacecap)



Endless Summer



Wedding Gown



Blushing Bride



Twist-n-Shout

Pruning basics

Flowers on new wood (current season's growth)

H. a. petiolaris, H. arborescens, H. paniculata

Cut stems down to 12 inches in spring, when dormant

Prune out thin stems (no more than 1/3 of total growth)

Flowers on old wood (last season's growth)

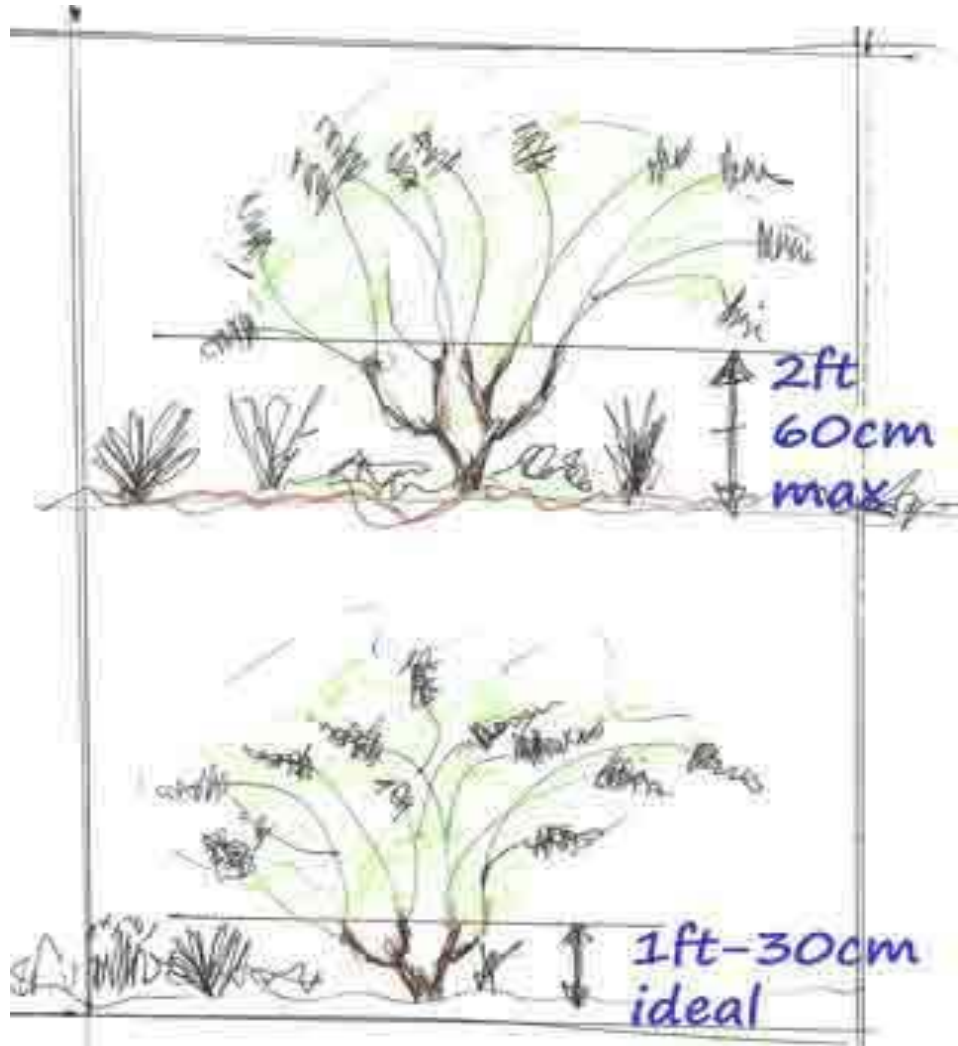
H. macrophylla, H. quercifolia, H. serrata

Pruning best avoided

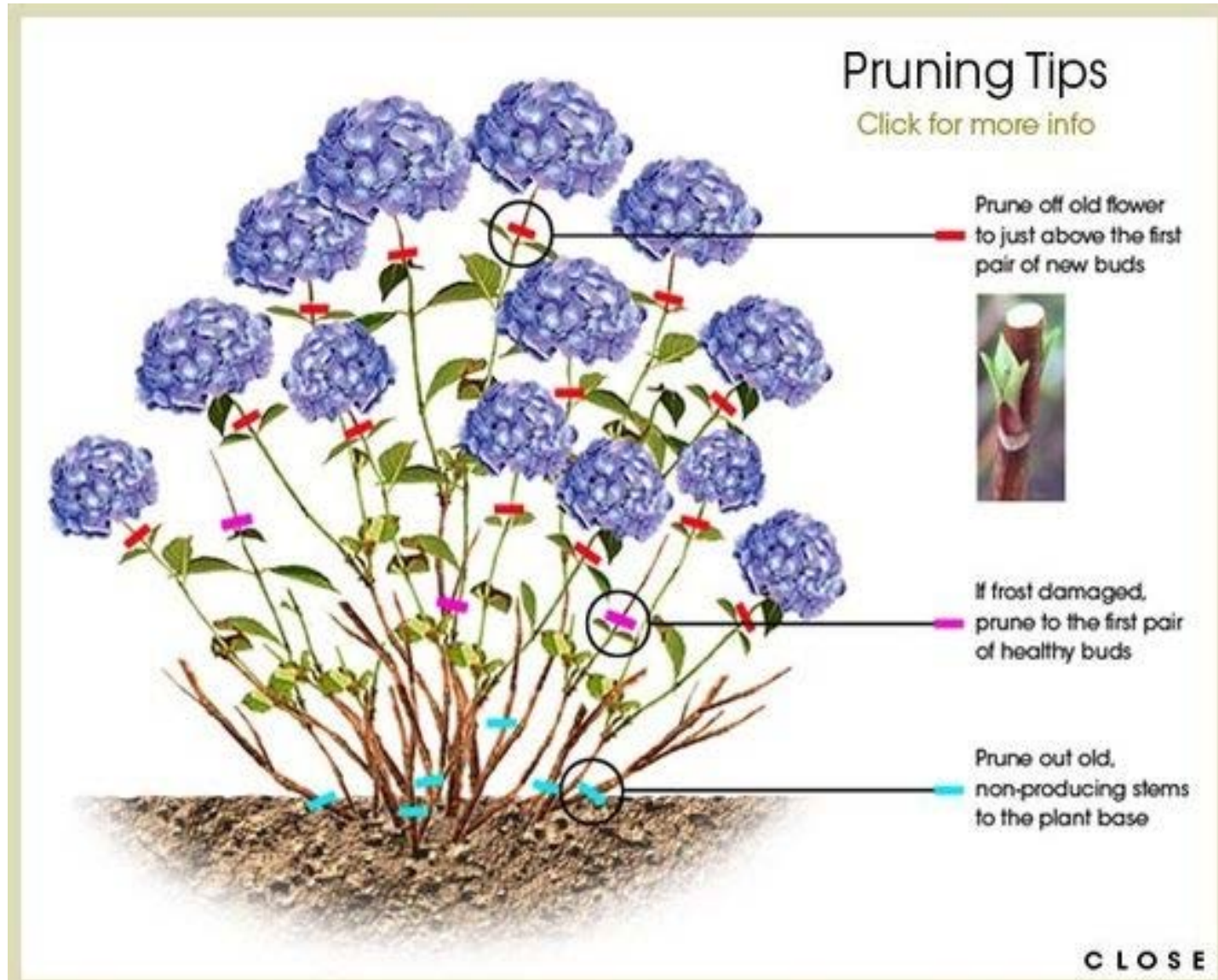
Deadhead in autumn

Remove dead branches in spring

New wood



Old wood



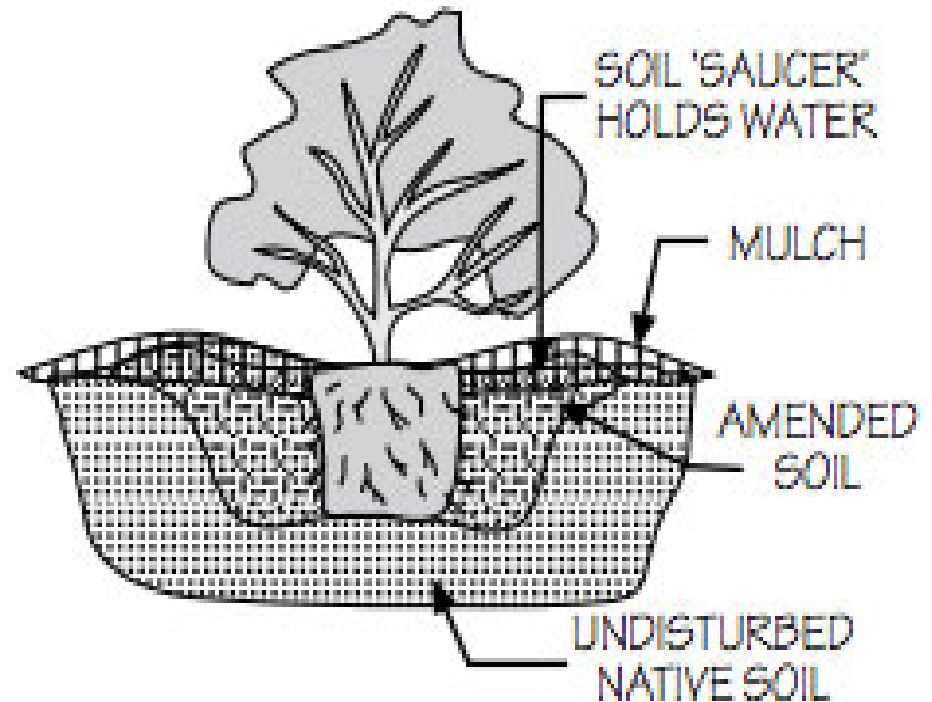
Planting and transplanting

Plant at the same depth

Rim of soil

Water well

Cover with 2 inches of mulch



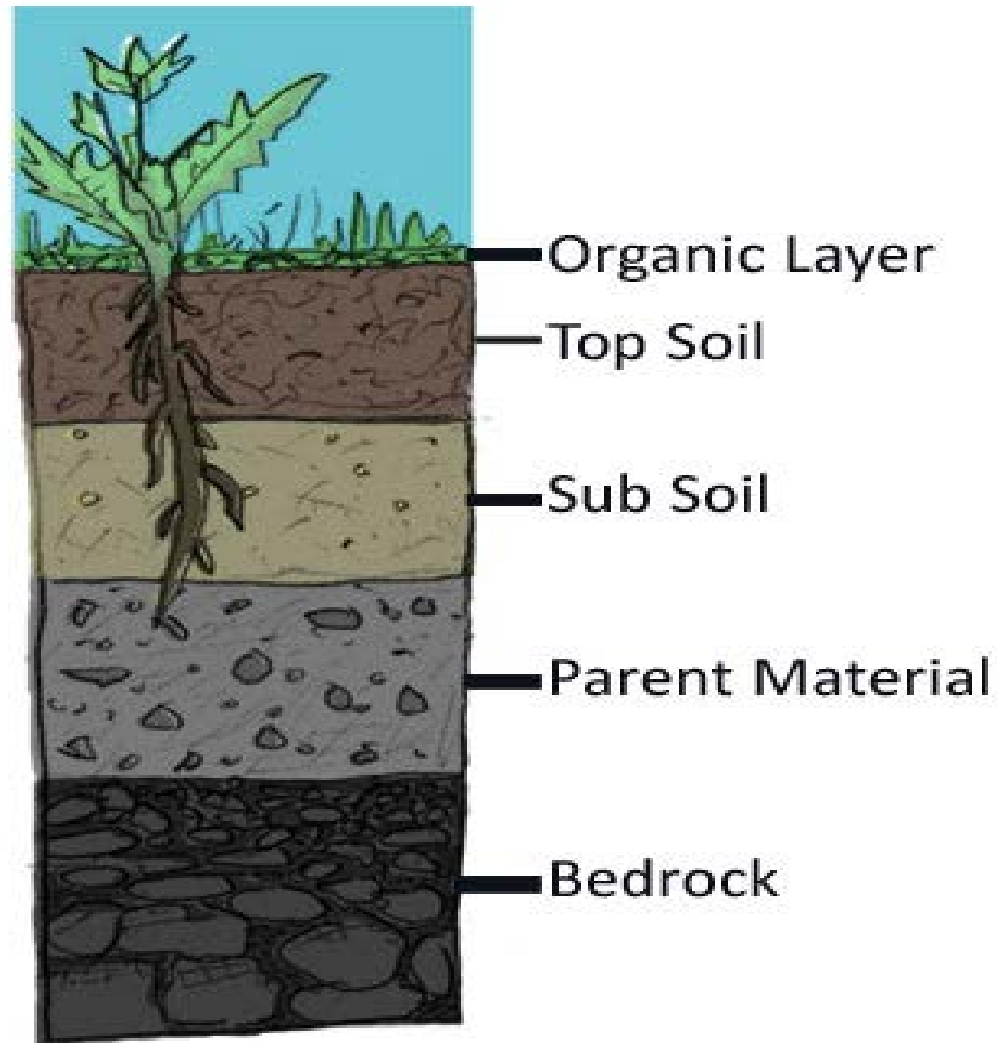
Soil

No soil – no plants on earth

Half the plant is underground!

“ The upper layer of the earth produced by the weathering of rock and influenced by climate and relief” – Soil Science Society of America

Soil layers/horizons



Soil – 5 components

Inorganic

rocks and minerals

Organic

humus (material that is dead or decaying)

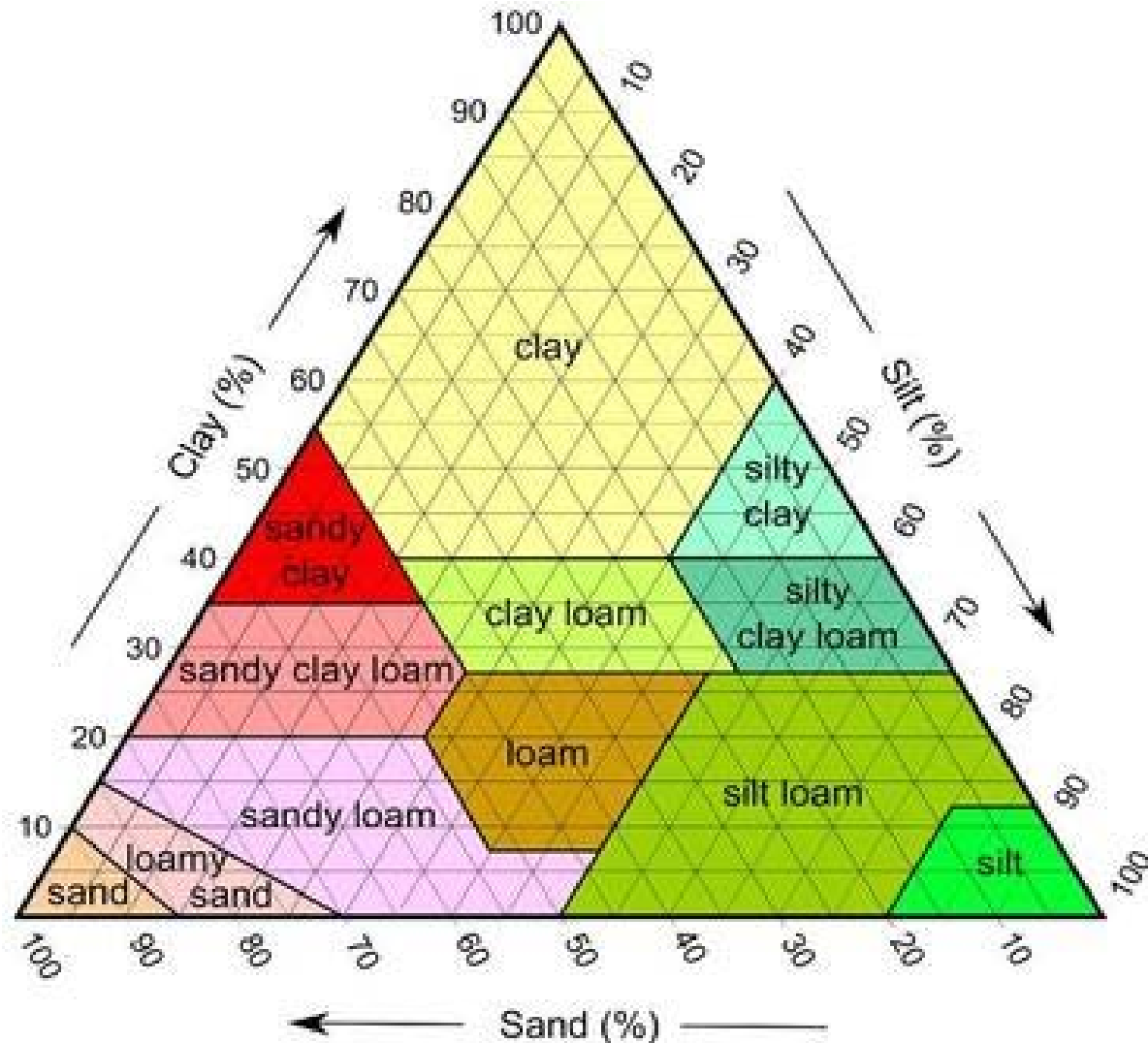
Water

Air

Creatures

Soil – inorganic/mineral

Soil texture based on sand, silt and clay



Soil – organic/humus

ORGANIC MATTER

The living, the dead and the very dead



Roots, micorrhizae
and bacteria



Crop residues, dead
roots, microbial biomass

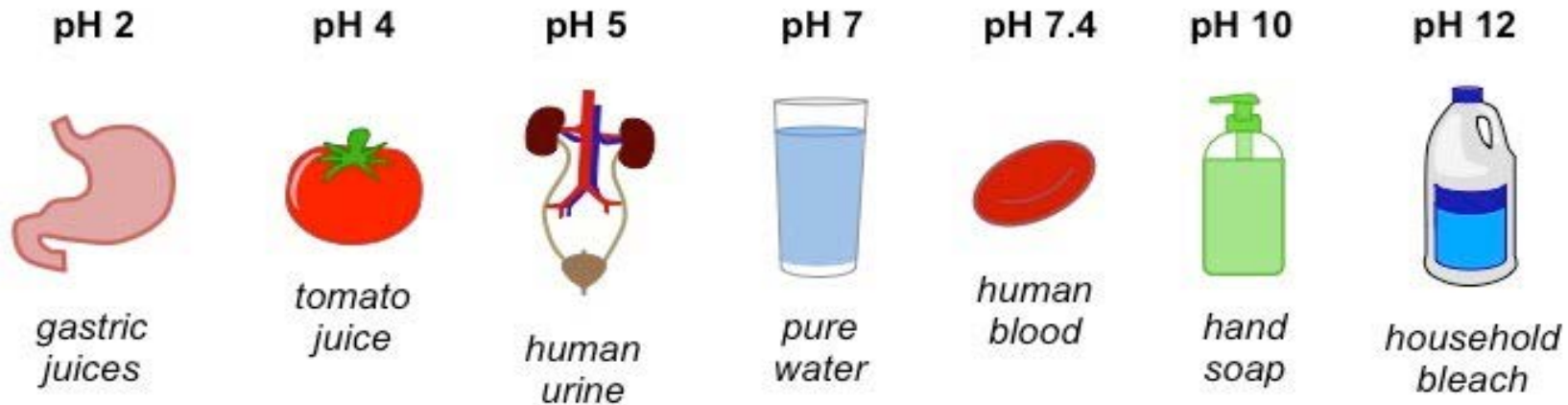


Humus
stabilized OM

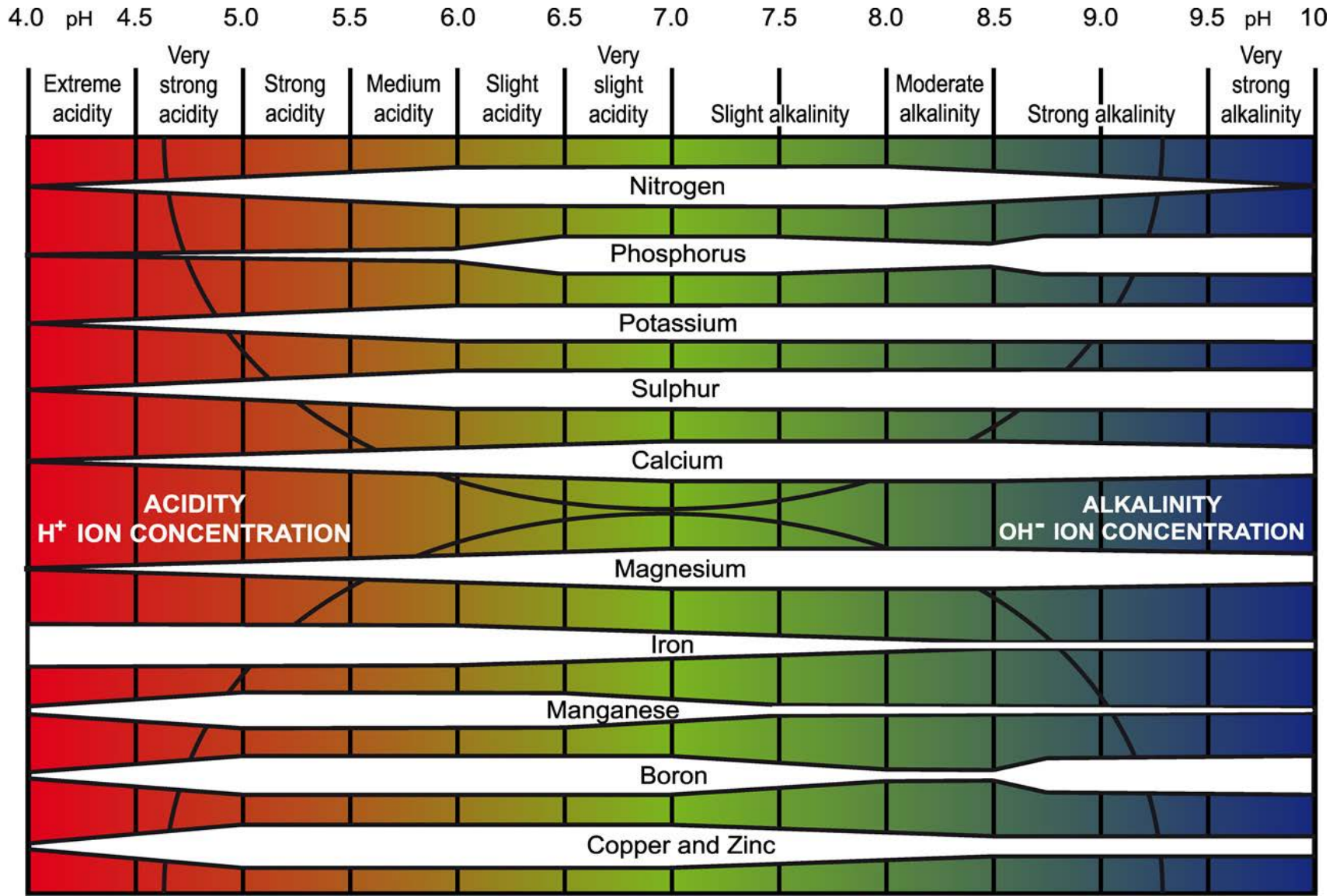
Soil – pH chart



Examples of pH Conditions:



Soil pH – effect on plant nutrients



Influence of soil pH on flower color



Changing soil pH

To increase pH 5.5 to 6.5 loam soil (PINK)

limestone (dolomitic or calcitic)

4 lbs/50 sq.ft.

To decrease pH 6.5 to 5.5 loam soil (BLUE)

sulfur - 1 lb/50 sq.ft.

*aluminum sulfate – 1T/gal water on plants 2 years+

peat moss

organic matter/compost/coffee grounds

mulch with pine bark

avoid concrete

Fertilizing hydrangeas

NEVER at planting or transplanting time

NEVER after August 15

Springtime (2 years old +)

Hydrangea food

Hollytone

10-10-10 or 5-10-5

slow release

Propagation

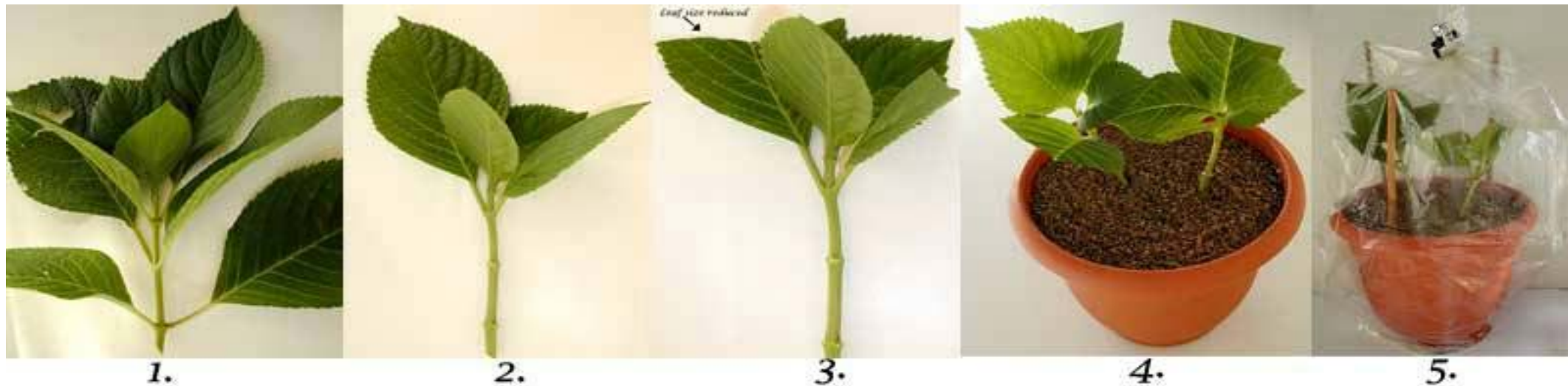
4-6 inch softwood cutting taken in June

Strip bottom leaves and cut large leaves in half

Nodes dipped in Rootone

Pot in sterile medium (vermiculite), water, let drain, cover with plastic bag (leaves should not touch bag)

Overwinter pot outside, sunk in the ground



POP QUIZ!

Hydrangea species	USDA Zone	Light	Height and width	Flower color	Old or new wood	Flower type
H. anomala petiolaris	4-9	Full Partial	60' H	White	New	Flat-topped (lacecap)
H. arborescens	3-9	Partial Full	3-5'	White, fades to green	New	Cone-shaped
H. macrophylla	6-9	Full Partial	4-8'	Pink, blue, purple	Old	Lacecap or cone (hortensia)
H. paniculata	3-9	Full Partial	8-15'	White, fades to pink	New	Cone
H. quercifolia	5-9	Full Partial	5-8'	White, fades to pink	Old	Cone
H. serrata	5-9	Full Partial	3-6'	Pink, blue, purple	Old	Flat-topped

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 September 2017

Drying flowers

1. Allow to dry naturally on the plant
2. Cut stems, strip leaves, stand upright in vase, w/ or w/o water
3. Flower heads covered with silica gel or 60:40 mix of white cornmeal:borax in a large plastic container. Cover and keep dark. Pour out the mixture after 4 days (silica gel) or 2 weeks (cornmeal:borax)

For wreath-making: submerge flowerheads in warm water 10-15 minutes to soften. Allow to dry again.



Dyeing flowers

To dye: flowers should be dry and off the plant for two weeks

Dye should be boiling

Lower bloom into bath and hold for a few seconds

Hang to dry

Color dried flowerheads with spray paint

Christmas with hydrangeas



References

Hydrangeas for American Gardens, Michael Dirr, Timber Press, Portland, OR, 2004

Encyclopedia of Hydrangeas, C. J. Van Gelderen and D. M. Van Gelderen, Timber Press, Portland, OR, 2004

Hydrangeas, a Gardener's Guide, Toni Lawson-Hall and Brian Rothera, Timber Press, Portland, OR, 2005

More references

Hydrangeashydrangeas.com

Fine Gardening

Horticulture

Garden Design

Plant sources

Canete, Black Oak Ridge Rd., Wayne, NJ

Glenwild, Bloomingdale, NJ

Ploch's, Broad St., Clifton

Richfield Farms, Van Houten Ave., Clifton

Riverside, Ramapo Valley Rd., Oakland

Morris County Farms, Smith Rd., Denville

Big box stores

Mail sources

White Flower Farm

Monrovia

Wayside Gardens

Jackson and Perkins

Proven Winners

American Hydrangea Society

Hydrangeas Plus

Nantucket Hydrangea