Horticultural Points of Interest February 2018

- **Fertilizer Basics**
  - Major Components
    - Three Numbers (N-P-K) are the Percentage by Weight of these Elements in the Fertilizer
    - Nitrogen (N): Necessary for strong Leaf and stem growth. Too much can weaken Plant and delay or prevent Flowering.
    - Phosphorus (P): Needed for root development, flowering and seed and fruit formation. Essential for plant Metabolism.
    - Potassium (K): Increases Plant strength, disease resistance, stress and drought tolerance.
    - 5-10-5 is 5% Nitrogen, 10% phosphorus and 5% potassium
  - Minor Components
    - Calcium (Ca): Needed for plant enzymes and cell wall formation. Too little results in Stunted growth
    - Magnesium (Mg): Needed for Chlorophyll formation and the production of plant enzymes
    - Sulfur (S): Again needed for the formation of Chlorophyll. Too little results in light green Leaves.
  - Trace Elements (In general most soils are contain these)
    - Boron (B): Used in cell wall formation, calcium intake and cell membranes. Too little results in stunted or irregular growth
    - Chlorine (Cl): Involved in Osmosis. Deficiency results in wilting, stubby roots and yellowing of Leaves
    - Copper (Cu): Plays a part in Nitrogen metabolism. Deficiency results in die back of growth tips.
    - Iron (Fe): Needed for Chlorophyll formation. Too little results in yellowing of the Leaves
    - Manganese (Mn): Needed for enzyme activity for Photosynthesis, Respiration and Nitrogen Metabolism
    - Molybdenum (Mo): Constituent of enzymes that reduce nitrates to ammonia. Deficiency results in poor growth & poor seed production
    - Zinc (Zn): Component of enzymes. Deficiency result in yellowing of Leaves
- **Water Soluble Fertilizer**
  - Dissolves quickly in water & is immediately available to plants
  - Revolution in such Fertilizer
    - Excessive Phosphorus is detrimental to Plants and unnecessary for Bloom
    - 3-1-2 Ratio is Optimum for Plant Growth and Sufficient for Blooming
      - Result from Apopka Research Center, Florida
      - Fine Gardening Magazine study (August 2015) showed that half strength Miracle Grow 12-4-8 performed as well or better than full strength Miracle Grow Bloom Booster 10-52-10 both in Leaf Growth and Bloom Production
      - For Houseplants low Phosphorus minimizes Salt buildup in Soil and reduces the Risk of Fertilizer Burn (Typified by crispy and darkened Leaves even though adequate Moisture)
        - Use half or quarter strength Fertilizer in the Winter
    - For Houseplants in popular Peat based potting mixtures addition of Calcium, Magnesium and some Trace Elements is beneficial
      - Peat mixtures & most Fertilizers do not have these elements
      - Dyna-Gro Foliage Pro 9-3-6 an excellent source of the required elements

- **Pruning –When and How**

Latin Name	Common Name	When to Prune	Comments
Amelanchier Laevis, Canadensis, Arborea	Shad Bush, Sarvisberry	Winter	Remove crossing and crowded branches. Remove suckers
Buddliea Davidii	Butterfly bush	Spring	Cut 12" from ground after leaves and shoots start to grow. Can cut to 36" in Fall for appearance
Buxus Ssp	Boxwood	See comments	For light pruning trim in summer. Overgrown specimens can be pruned hard in late spring
Callicarpa Ssp	Beautyberry	Spring	Remove deadwood and trim
Cercis Sspi	Redbud	Winter	Remove damaged branches only. Dislikes pruning
Chaenomeles Ssp	Flowering Quince	Summer	Thin weak and crowded branches
Cornus Alba, Stolonifera , Sanguinea	Red Twig, Yellow Twig Dogwood	Late Winter – Early Spring	Cut fully to the ground & fertilize. This prevents flowers & berries. Alternately remove 1/3 to ½ of the stems. Only new shoots are highly colored
Cornus Florida, Kousa	Flowering Dogwood	Early Spring	Prune deadwood & crossing limbs. Otherwise minimize pruning
Daphne Ssp	Daphne		Dislikes pruning. Best left to develop naturally.
Forsythia Ssp	Forsythia	Early Spring	Cut 1/3 of older canes to ground in Spring
Hamamelis Ssp	Witch Hazel	Summer	Thin branches otherwise minimize pruning
Hydrangea, Arborescens, Paniculata	Snowball, Peegee Hydrangea	Late Fall-Early Spring	These bloom on new wood. Early pruning invigorates growth and doesn't affect flowering
Hydrangea Macrophylla, Serrata	Mop Head, Lacecap Hydrangeas	Immediately after flowering	These bloom on old wood. Fall or winter pruning will remove flower buds for the next spring
Illex Ssp	Most hollies	Anytime	Reasonably tolerant of pruning
Kalmia Latifolia	Mountain Laurel	Spring after blooming	Deadhead flowers. Prune to shape. More tolerant than Rhododendrons to severe pruning but may be best to use the same technique
Kerria Japonica	Japanese Kerria	After blooming	Cut out weak and old canes
Magnolia Ssp	Magnolias	Summer only	Prune only as absolutely necessary. Reported to heal poorly
Malus Ssp	Apple fruit trees	Winter	Remove weak inner branches and waterspouts. Shape laterals and open to light
Pieris Ssp	Adromeda	Spring after blooming	Deadhead flowers. Remove weak stems. Heavy pruning can take a toll on these shrubs
Pyracantha Ssp	Firethorn	Mid-Spring	Shape in mid-Spring. Trim new leafy growth in summer to expose the berries
Rhododendron Ssp	Deciduous Azaleas	Late Spring-Early Summer	Size and shape pruning before next year's buds form.
Rhododendron Ssp	Evergreen Rhododendrons	Early Spring at Bloom Time	If severe pruning, cut 1/3 of the branches at this time & repeat following years. Water & fertilize to speed recovery. Some flowers will be lost but this gives time to recover.
Prunus Ssp	Flowering Cherries	After flowering	Remove waterspouts, crossed & crowded branches
Styrax Ssp	Styrax		Dislikes pruning. Best left to develop naturally.
Taxus Ssp	Yews	Spring, Summer	Prune to shape. Quite tolerant of pruning
Tsuga Ssp	Hemlocks	Early Spring	Shear before new growth. Fairly tolerant of pruning
Viburnum	Viburnum	Spring	Remove crossed branches & thin as needed. Heavy pruning can take a toll.