Tomato Talk – Given to Garden Society of Marin – 5/13/10

By Chris Borjian

Botantical History

*Solanaceae Family

**Solanum esculentum* / *Solanum lycopersicum* / *Lycopersicon esculentum*

-Cherry Tomato – *var. cerasiforme*

*Determinate vs Indeterminate

*Native to West Coast of South America (Peru)

*1st domesticated in Mexico

*Spanish and Italians 1st in Europe to cultivate and incorporate in diet

*Initially thought to be poisonous by rest of Europe.

*Introduced to United States by British

-Initially grown just as ornamental plants and fruit was used as pustule remover

*Sept. 26,1820 – Colonel Robert Gibbon Johnson story

-ate whole bushel of tomatoes on Sept. 26

-2000 people showed up to watch – thought he was crazy

-Following 20 years tomatoes became much more popular in the US

Planting and Basic Care Guidelines

*Soil Prep

-Lots of Organic Matter

-Compost, Worm Castings, Bat Guano (High P and K), Epsom Salt (Magnesium), Dolomite Lime (pH balance and Calcium), Oyster Shells (Calcium), bonemeal (P and Calcium)

-Calcium important

-insufficient Calcium can cause blossom end rot

-Keep Nitrogen low to moderate – too much will inhibit fruiting

-avoid bloodmeal, cottenseed meal, alfalfa meal

*Planting

-Plant tomatoes deeply, pinching off lower branches (adventitious roots will sprout from stem hairs)

-Pinch off any flowers or fruits that have started to form at time of transplanting

-avoid touching stem hairs

-dig hole 15-20in deep, wide enough to fit rootball

-at bottom of hole add shovelful of compost, organic vegetable fertilizer (want P and K values higher than N, and N+P+K <or = 15)

-add mycorrhizae to hole as well (optional but I personally believe has huge benefits for helping plant uptake all nutrients in soil organic matter)
-place rootball firmly in hole, backfill, then water in deeply
    -water several times allowing, water to saturate soil down to level of rootball

*Basic Care
-Watering
    -Initially after transplanting irrigate tomatoes ~ 5-7 times a week
    -After 3-4 weeks, when plant is well established, watering can be reduced to 3-4 times a week
    -very important to maintain a relatively constant/even soil moisture level to prevent blossom end rot
    -reduce irrigation levels as fruit begins to develop to improve flavor (too much water can lead to watery, dull tasting fruits)
    -avoid water getting on tops of tomatoes (can cause late blight)
-Pruning
    -remove or stake up any branches that are close to soil
    -in areas that have high humidity (coastal regions), prune out central/lower branches to improve air flow through plant and prevent powdery mildew and late blight
-Fertilizing
    -organic fertilizers low in N and high in P and K (remember N+P+K <or= 15 rule), apply 1-4 times once fruiting has started
*Special Tips
-Try not to plant tomatoes in the same place 2 years in a row, especially is previous years tomatoes had problems
    -helps prevent verticilium wilt
-Don’t plant tomatoes near petunias or potatoes or other
    -they are host for Tomato russet mite
-Plant with basil, marigold, other aromatic plants
    -help prevent pests
-Molasses
    -add~1tbsp per gallon of water and water in weekly once fruiting has begun
    -improves flavor, especially beneficial for container plants that use up the nutrients in container by time they are fully fruiting

-Use blackstrap molasses (has substantial amounts of vitamins and minerals and is a great source of calcium, magnesium, potassium and iron, all very important nutrients for fruit production.)

-Sea Kelp

-use as a foliar spray, excellent way to provide plants with trace nutrients/minerals, especially important when fruiting is just beginning.

-spray in evening after intense sun has past (prevents leaf burn)

-look for cold water extracted sea kelp

-Compost tea

-apply once/week, provides soil with wide array of beneficial bacteria and microbes that will improve plant nutrient uptake from organic matter

-Humates

-apply once/week, greatly improves the ability for plants to uptake nutrients and minerals from soil, provides essential trace minerals