Growing Watermelon
Connie Holland, Adams County Master Gardener

One of the joys of my summer garden is growing and eating watermelons. My love of watermelons comes from spending summers on my grandfather’s farm where he raised them for us to enjoy. Nothing was better than sitting under the farm’s huge trees eating cool watermelon dripping with sweet juices. I have grown watermelons for the years with great success, harvesting over 500 lbs. from three hills the last two years when, just for fun, I started weighing each watermelon.

Watermelons originated in Africa. There are over 500 varieties. Watermelons come in three main seed groups: early season, main season and seedless. Early season watermelons mature in 70-75 days and produce the smaller sized fruit, often called "ice box” melons since they readily fit on a refrigerator shelf.

Main season melons produce in 80-85 days, weigh 18-30 pounds and usually have dark green rinds. The type I like to grow is Sangria. It gets really large; my biggest so far weighed 36 pounds. Their taste is very sweet and crisp, readily overcoming the fact that they contain seeds. Seeded main season watermelons also come in yellow or orange-fleshed varieties such as Desert King or Tendergold.

Understanding genetics is the key to growing seedless watermelons. Seedless watermelons are sterile hybrids that produce no fully developed seeds in the fruit. Some immature edible white seeds may form. Production of seeds to grow seedless watermelons is extremely labor-intensive so one only finds seedless plants in nurseries. Normal seeded melons are "diploid" meaning they have two sets of chromosomes, one set from each parent. To obtain a seedless melon seed, a seeded parent is treated with colchicine (derived from autumn crocus and used to treat gout) causing four sets of chromosomes to be developed. The resulting "tetraploid" plant is crossed with a regular "diploid" plant to create a "triploid" plant containing three sets of chromosomes.

"Triploid" plants produce seedless watermelons. Because of the odd number of chromosomes, they are unable to form seeds in the fruit. However, these plants still produce female flowers, but they cannot make viable pollen for fertilization needed to grow fruit. As a result, a seeded watermelon must be grown along with a seedless variety to provide pollen for fertilization and fruit formation. Keep that in mind if you want to grow seedless watermelons in your home garden. You must grow at least one seeded watermelon plant in order to grow any seedless watermelons.

Watermelons require full sun, plenty of nutrients, water, and room to vine during the growing season. Transplant seedlings well after the frost date when the soil has warmed to 60+ degrees.

Watermelons can result only from successful pollination. Male flowers appear first on the main vine runners while female flowers appear later on lateral shoots. A female flower will have a tiny marble-sized watermelon below the flower. Once main vines reach about 10 feet, if no female flowers have appeared, nipping the main vine ends can force side shoot formation leading to female flower production. Female flowers also can be hand pollinated by dabbing the female flower with a male flower or using a paintbrush. Flowers open early in the morning and last usually only one day.

Judging when to pick a ripe watermelon is not a simple task. I usually end up sacrificing one or two until I get it right – crisp ripe flesh without being grainy or mushy. The first tipoff to ripeness occurs when the tendril attaching the watermelon to the stem starts to dry and turns brown, and the second is when the ground spot,
where the melon rests upon the ground, begins turning from a pale green or white to a creamy yellow color. To
insure the accuracy of this indicator, do not rotate your watermelons while still on the vine. Thumping is less
successful for me. Supposedly a ripe melon has a muffled, dull tone while a less ripe one has a clear ringing
tone.

Growing your own watermelons is a lot of fun. Give it a try. You will enjoy the fruits of your labor.

For more information about the Frederick County Master Gardener/Horticulture Program, visit
www.frederick.umd.edu/mg or call Susan Trice at the University of Maryland Extension Frederick County
office, 301-600-1596. Find us on Facebook at
http://www.facebook.com/mastergardenersfrederickcountymaryland
University of Maryland Extension programs are open to all citizens without regard to race, color, gender, disability, religion, age,
sexual orientation, marital or parental status, or national origin.