From The Ground Up

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Growing Successful Summer Squash

Written by: Richard Jauron and Greg Wallace Reprinted from Yard and Garden online – Iowa State University Extension and Outreach, Published July 2, 2014

The summer months are the perfect time to enjoy summer squash from the garden, but successful growers must clear hurdles to gain a bountiful harvest. Here are some tips from Iowa State University Extension and Outreach on the best ways to have a fruitful summer squash crop this year, with help from ISU Extension horticulturists.

My summer squash are flowering heavily, but aren't producing many fruit. Why? Squash and other vine crops are monoecious. Monoecious plants have separate male and female flowers on the same plant. Male and female flowers are similar in appearance. However, female flowers have small, immature fruit at their base. Pollen is transferred from the male to the female flowers by bees and other pollinators. When properly pollinated and fertilized, the female flowers develop into fruit. The first flowers to appear on squash and other vine crops are predominately male. As a result, fruit production is poor when plants begin to flower. The squash plants should start producing a good crop within a few weeks as the number of female flowers increases.



Poor weather and the use of insecticides can also affect fruit set on vine crops. Cold, rainy

weather during bloom reduces bee activity. Fewer bees visiting the garden results in poor pollination and poor fruit set. Apply insecticides in the garden only when necessary to avoid



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harming bees and other pollinators.

The fruit on my summer squash begin to grow, but quickly turn brown and rot. Why? The rotting of the small squash fruit could be due to poor pollination or blossom-end rot. For squash fruit to develop fully, bees and other pollinators must transport pollen from the male flowers to the female flowers. If the female flowers aren't pollinated properly, the fruit will begin to grow and then suddenly shrivel up and die. Bees and other pollinators are less active in rainy weather. Rainy weather could be responsible for poor pollination and rotting of the small fruit. Drier weather conditions should increase pollinator activity.

To prevent the destruction of honey bees and other pollinators, avoid spraying plants with insecticides during bloom. If spraying during bloom is necessary, apply insecticides late in the evening when the honey bees have quit foraging for the day.

Blossom-end rot is a physiological disorder that occurs on tomatoes, peppers, eggplant and summer squash. On zucchini and other summer squash, the blossom end of the fruit begins to rot and within a short time the entire fruit has rotted. Blossom-end rot is caused by a lack of calcium in the developing fruit. In most cases, there is no need to apply calcium to the soil. Try



Summer Squash Photo: Iowa State University Extension and Outreach

to maintain an even moisture supply by watering once a week during dry weather. Also, do not over-fertilize plants. Uneven moisture supplies and excessive nitrogen inhibit calcium uptake.

When should I harvest my summer squash? Harvest zucchini and other long-fruited summer squash when the fruit are $1\frac{1}{2}$ to 2 inches in diameter and 6 to 8 inches long. Scalloped types are best when 3 to 5 inches in diameter. Fruit should have soft skins (rinds) that are easy to puncture with a fingernail. Seeds should be soft and edible. Harvest plants frequently for

Eye Spy...Herbicide Drift Injury

continuous production.

This kind of injury can be caused by exposure to growth regulator herbicides, such as 2,4-D and dicamba. Growth regulator herbicides are commonly used to control weeds in lawns and landscape areas.

During herbicide applications, very fine droplets or vapors can drift to areas where the application was not intended and as a result, vegetables, ornamentals, and urban trees can show herbicide injury symptoms. It is difficult to determine how far the herbicide will drift as it will depend on several factors like type of herbicide, environmental conditions at the time of application, and sensitivity of surrounding plants.

Homeowners can decrease the risk of herbicide injury by avoiding applications during windy days and spraying at low pressures. If possible, avoid applications before highly sensitive plants like tomatoes, peppers, and potatoes are planted. Also, avoid using treated grass clippings as mulch near susceptible crops. It takes a long time for herbicides to break down and some of the chemicals can be picked up by the root system.

Recovery of herbicide-injured plants will depend mostly on the amount of herbicide, persistence of the product in the soil, and sensitivity of the plant. Severely damaged plants may not always recover or be able to produce fruit. However, survival and recovery of the plant can increase by enhancing plant vigor with proper watering practices, pest control, and adequate fertilization.

By Erika Saalau, ISU Plant & Insect Diagnostic Clinic, published 6/13/12



July 2014

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5
6	7 <u>Raise mower height</u> <u>to 3"</u>	8	9	10 <u>Continue to deadhead</u> <u>flowers</u>	11	12
13	14	15 Watch for cucumber beetles, squash bugs & potato bugs	16	17	18 Check for fungal infections on roses	19
20	21	22	23 Make plans to plant a fall garden	24	25	26 Visit a farmers market
27	28	29 Water trees and shrubs as needed	30	31		

The Herb Garden

The herb section highlights herbs that can be grown in the South Dakota region

By Priscilla Jurkovich, Master Gardener

Parsley (*Petroselinum crispum*) is a biennial herb from the Apiaceae family. In the first year, parsley develops a rosette and the 2nd year an umbel similar to dill. In South Dakota, parsley is grown as an annual. It prefers full sun with loose well drained soil. You can plant indoors or direct sowing of the seed in the soil after danger of frost has past. However, germination can take from a week or two depending on warmth of soil, pre-soaking of seeds, and weather



conditions.

Parsley is one of the most



popular culinary herbs. Historically, parsley was used to adorn victors in athletic competitions and to place on tombs of the deceased. Eventually it made its way as a seasoning. The Italian and curly parsley are two varieties seen in South Dakota. The curly parsley is best preserved by freezing, but the Italian, flat variety is easily preserved by drying.

Parsley has a variety of medicinal uses. This healthy food is an anti-oxidant and an excellent source of vitamins K, A, B and C. It offers nutritious flavor with the benefits of nutrients such as copper, folic acid, potassium, calcium and magnesium. Parsley's constituents can help prevent heart disease and stroke. After a meal it can cleanse your palate and freshen your breath.

Photos from Priscilla Jurkovich's garden

It's Raspberry Time

The raspberry is the third most popular berry in the United States, falling just behind strawberries and blueberries. Their popularity is not a surprise. They taste great and are very versatile. The fruit can be eaten fresh or processed into jam, jelly, or juice.

The raspberry belongs to a large group of fruits called brambles, which are part of the rose family. The four types of raspberries commonly grown in home gardens include black, purple, summer -bearing red, and fall-bearing red. There also are several yellow raspberry varieties (cultivars).

Raspberries are unique because their roots and crowns are perennial, while their stems or canes are biennial. A raspberry plant may survive and produce fruit for many years. However, individual canes live only two years and then die. During the first growing season, the shoots of purple, black, and summer-bearing red raspberries are strictly vegetative (non-fruiting). In the first year, the cane is referred to as the primocane. The following year, these same canes (the floricane) flower, produce fruit, and then die.

Raspberries are best planted in early spring. They like to be in an area with good air circulation, good drainage and full sunlight. Plants should have a reliable support system such as trellis wires or stakes.

Raspberries are ripe when the fruit is fully colored. Ripe berries slip easily from the receptacles, which remain on the plant. Raspberries are very perishable; they should be harvested every two or three days, handled carefully, and refrigerated or frozen immediately. Raspberries can be stored for only three to five days in the refrigerator.



To get the best yields, raspberries must be pruned properly. Proper pruning also helps with controlling diseases. The right pruning procedures are based on the growth and fruiting characteristics of the plants. For more information on how to prune raspberry plants, see the Iowa State University Extension and Outreach publication titled, <u>Pruning Raspberries</u> (revised January 2013). For growing raspberries in your home garden, see <u>Growing Raspberries in the Home Garden</u> (revised September, 2012). Margaret Murphy

Weed of the Month: Musk Thistle By Paulette Keller, Master Gardener



www.ag.ndsu.nodak.edu/invasiveweeds/musk1.htm

Growth: Musk thistle is a biennial plant that can grow up from 1-4 feet tall. The plant forms a rosette of leaves which can grow to more than 24 inches in diameter. Its multibranched stems and leaves are short and spiny. The leaves are dark green, coarsely bipinnately lobed, with a smooth, waxy surface and sharp yellow-brown to whitish spines at the tips of the lobe. They are more or less hairy on top, and wooly on the veins below. The plant bears showy red-purple flowers with large brown bracts that resemble a pine cone. The large flower heads contain hundreds of tiny individual flowers, are 2-3 inches in diameter and occur at the tips of stems. The flower heads commonly droop to a 90° to 120° angle from the stem when mature. Its alternate name is "Nodding thistle". It is widespread throughout the Great Plains and grows in pastures, rangeland, open woodlands and fertile lowlands.

Uses and Values: Musk thistle seed is eaten by songbirds. In Eurasia, dried flowers have been

used to curdle milk. The pith of second year plants and the roots of first year plants can be boiled and eaten.

Control: Musk thistle is classified as a noxious weed throughout the Great Plains. Musk thistle will not tolerate tillage and can be removed easily by severing its root below ground with a shovel or hoe. Mowing can effectively reduce seed output if plants are cut when the terminal head is in the late-flowering stage. Gather and burn mowed debris to destroy any seed that has developed. Herbicides can be used to control musk thistle and should be applied late in the fall but before a killing frost.



Where's Stella? Have you seen Stella?

By Ann Larson, Master Gardener Intern

Of course vou have – everyone has – she is everywhere! Hemerocallis "Stella de Oro" was developed by Jablonski in 1975 and has been called the most popular and widely-grown daylily of all time. Stella has won the Stout Medal - daylily's highest award. These bright golden blooms can be seen now until frost.

When reviewing comments posted on several websites related to Stella de Oro. I see that some consider this daylily to be very overused and overhyped. That may be true. Stella can be bought almost anywhere – from Sam's Club to Walmart, Lewis, all the nurseries, by mail and online. These fabulous patches of bright vellow can be seen in most commercial landscapes and are used by many homeowners.



Photo Stella de Oro: https://gustavus.edu/arboretum/gardenflowers.php

There is a very good reason for that! The plant is easy to grow, versatile, hardy to zone 3, adaptable to many conditions and is gorgeous! It is a great re-bloomer, especially if it is dead headed every three days. (When dead-heading, be sure to remove stem and all.) Used in borders, mass plantings, and container gardens, Stella is a sun lover, but tolerates shade and also dry conditions. It is deer resistant! Stella can also be used as a cut flower. What's not to love?

Community Gardens: Starting with a Good Foundation Is there an entity in town who could act as a collection point for By Chris Zdorovtsov & Kari O'Neill

Community Development Field Specialist



Local assets and resources are the foundation to a community garden. The importance of a bottom-up grassroots approach is key.

The authors of Growing Communities Curriculum (Abi-Nader et al., 2001) say the most successful community gardens are initiated, established, and managed

by the gardeners themselves. When gardeners have the opportunity to take ownership in a project, they are more likely to invest their time and effort toward its success. Gardeners will bring unique personalities, perceptions, knowledge and experience to a group situation. Remaining open to these differences and tolerant of group members will help in creating a welcoming atmosphere for the whole community.

Consider which partners should be brought to the table to assist. Could the city, a business or a local church provide land? Are there gardening experts who could provide training and advice?

applications?

As you bring together your planning committee collect names, phone numbers, email addresses, and make notes of the role the person or partner would like to fulfill or assets they bring to the table.

Of course, there are many outside resources that can offer expertise in growing gardens, too. If planning to establish a community garden in South Dakota SDSU Extension can help! Extension can assist your planning team by providing coaching to teams interested in starting projects.

Additionally, our Workbook, "Diggin' the Dirt, Community Style" is available at http://iGrowSDLocalFoods.org in the Resource Library. This tool helps communities walk through the steps involved in planning out a project. Contact Chris at Christina.Zdorovtsov@sdstate.edu or at 605-782-3290 for assistance with developing a garden.

Additionally, SDSU Extension offers a range of online resources that would be helpful to community gardeners including horticulture information at http://igrow.org/gardens/, community & school garden resources at http://igrowsdlocalfoods.org, and food & nutrition information at http://igrow.org/healthyfamilies/.

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