

## The All-Star Pollinator Magnet

Have you seen a flower catalog recently? I just saw one that claims it offers more than 100 new perennials every year! With so many choices, how can anyone feel confident when trying to select the best plant?

That's why I like the Perennial Plant Association. They have an award process where their members vote on the finest perennials. Every year they select a proven performer that is:

- Low maintenance.
- Pestfree.
- Adaptable to many situations.
- Widely available in stores.

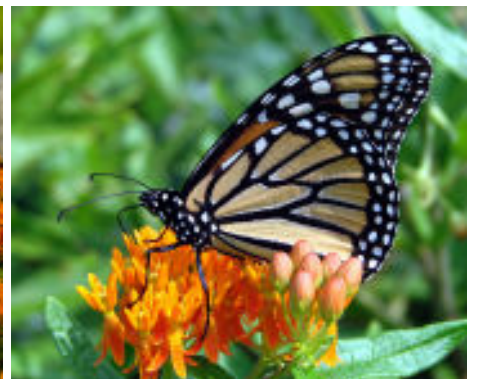
These are the All-Stars of Perennials, and the winner for 2017 is butterfly weed (*Asclepias tuberosa*).

Butterfly weed will bloom all summer in vibrant shades of tangerine orange, yellow and red. The flowers are full of nectar and pollen, making them irresistible to butterflies, hummingbirds and bees.

Its long bloom time, striking colors and refined plant habit make this plant a favorite choice among gardeners seeking Monarch butterflies.

You can enjoy the colorful blooms as a long-lasting cut flower. The white, silky hairs of the seed pods are showy in dried arrangements as well.

*Asclepias tuberosa* is native to the prairies of North Dakota. The plant is long-lived and tolerant of drought. It is subject to no serious insect or disease problems.



*Butterfly weed is certainly not a weed—it's a Perennial All-Star!*

Select a sunny, well-drained spot. Its tap root makes it difficult to move once established. Mulch it over winter to protect its roots from heaving.

Butterfly weed has always been a favorite in prairie and meadow gardens. Now it's become an All-Star throughout America as we appreciate its value in supporting pollinators in our environment.

### Inside This Issue

◆ Butterfly Weed	1
◆ Row Covers in Fall	2
◆ Drought Watch	2
◆ Chores & Challenges	3
◆ Vegetables	
◆ Trees and Shrubs, Fruits	
◆ Weather Almanac	5

# A Longer Growing Season

Our days are getting shorter and Jack Frost will strike in just over two months. Don't despair, we can extend our growing season this fall through the use of row covers.

Row covers are gauze-like blankets made of spunbonded polyester. They are used to promote growth and protect plants from frost. These remarkable covers also keep pests out but allow rain to pass through.

Row covers are categorized by weight (0.3 to 2.5 oz/sq yd). The lightest covers are used in spring to control insects on potatoes and cool-season crops. For example, they prevent damage from flea beetles and cabbage moths.

Medium weight (approx 0.5 oz/sq yd) can be used later this summer for frost protection. We use this in growing spinach and turnips in fall. They trap heat, accelerate growth and give you four degrees of frost protection. These covers can be used with or without hoops for support.



Row covers accelerate growth and protect crops from frost in fall.

Hoops can be purchased or you can make your own by using #9 galvanized steel wire. Cut them into 65- to 72-inch segments and insert them every four feet down the bed. PVC pipes can be used as well.

Hoops are not needed for cool-season crops. Lay the fabric loosely over the garden bed. Secure the edges with soil, rocks or sandbags. The fabric is so light the plants will lift it as they grow. Used in this manner, the fabric is referred to as a *floating row*

*cover*. A six-foot-wide fabric will cover a three-foot-wide bed.

Heavier row covers, called *frost blankets*, can provide eight degrees of protection. They are used at night, often to protect warm-season crops. Hoops are used for these heavy covers.

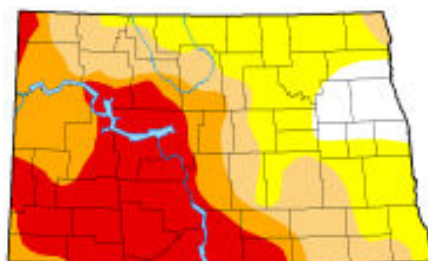
I realize the drought is on our minds now, but the long-term forecast for this fall is more favorable. We can extend our season and grow more vegetables this fall by using row covers.

## Drought Watch

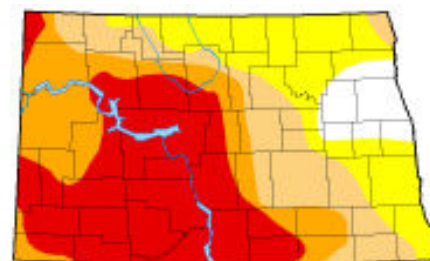
Rainfall was sparse and scattered throughout North Dakota last week. Approximately 94% of the state remains dry and 55% is suffering from severe drought.

Temps have been soaring in the 90s—at times exceeding 100°F—and increasing stress in landscapes. Rainfed lawns are dormant and many young trees are being scorched. Gardens are severely stressed.

No significant rainfall is in the immediate forecast but longer-term forecasts are more favorable (page 5).



July 4, 2017



July 11, 2017

- Moderately dry (crop growth slowed); 94% of state.
- Moderate drought (crop damage, voluntary water use restrictions); 73% of state.
- Severe drought (crop losses likely, water use restrictions); 55% of state.
- Extreme drought (major crop losses, widespread water use restrictions); 36% of state.
- Exceptional drought (widespread crop losses, water emergencies); 0% of state.

# Chores & Challenges

## Vegetables



### Colorado Potato Beetle

Colorado potato beetle is one of the most destructive pests in North Dakota. Beetles began emerging in mid-June in the Red River Valley.

Take action now. Look for orange egg masses on leaf undersides and squish them. In small patches, larvae and beetles can be handpicked and thrown into a pail of soapy water.

In large gardens, the organic pesticide spinosad (Entrust, Colorado Potato

Beetle Beater) is safe and effective. Pyrethrin works quickly but degrades quickly, requiring multiple applications. Neem oil (Azadirachtin) is effective before beetles mature.

Synthetic insecticides including pyrethroids (for example, permethrin, cyfluthrin and deltamethrin), esfenvalerate and carbaryl are often used, but the beetle is developing resistance to these chemicals.

### Squash Vine Borer

Orange, 1/2-inch moths are laying eggs at the base of squash and pumpkin vines. Listen for the buzzing pests and set out traps of yellow bowls with soapy water. If the pest is found, spray the base of vines with insecticide. Repeat 7–10 days later.

If a vine is found wilted, slice it open at the base to remove the borer. Lay the vine down, cover with soil and keep moist. Sometimes the vine will establish roots near the wound and recover.



### Cucumber Beetle

Striped and spotted beetles feed on leaves of cucumber and muskmelon, spreading a bacterium that causes wilting. Pests may be controlled with pyrethrin, neem, cyfluthrin, bifenthrin or carbaryl. Spray in early evening to avoid killing honeybees.



### Herbicide Injury

Pesticide drift or exposure to pesticide-contaminated manure may cause extreme curling of foliage. Most cases involve weed killers damaging tomato or potato vines. Plants will be stunted and vegetables may be contaminated.



### Flower Drop

Healthy tomato blossoms may fail to set fruit under extreme temps, drying winds or drought. A series of day temps above 85°F or night temps above 70°F can cause drop. Bean and cuke blossoms are slightly less sensitive; pepper blossoms are more sensitive.

# Chores & Challenges

## Trees & Shrubs



### Herbicide Injury

Leaves become elongated, curled or cupped. Most woody plants survive. In the future, use herbicides only when needed. Spray when wind is minimal and avoid hot days.



### Heat Scorch

Sweltering temps can cause leaves to scorch along edges. Newly planted trees are especially sensitive. Irrigate deeply when soil is dry. Mulch to conserve soil moisture.



### Dutch Elm Disease

A major branch shows yellowing and wilts. Take a one-inch-diameter sample and look for brown streaking in sapwood and beneath bark. Prompt removal of the tree is recommended.



### Iron Chlorosis on Maple

Leaves turn yellow, but veins remain green. Iron is locked in soil and not available to roots. Associated with high pH. Fertilize foliage or use a root feeder to provide a fertilizer containing iron.



### Viburnum Gall

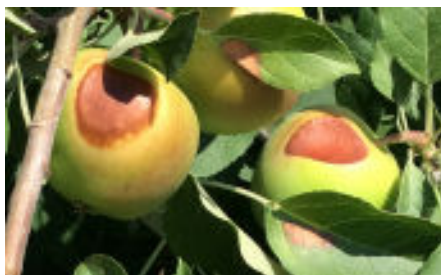
Eriophyid mites feed on leaves in early spring. This causes a hormonal reaction, leading to leaves curling and developing pink streaks. Damage is cosmetic and no pesticides are needed.



### Deadhead Spirea Flowers

Clip off the dried, faded blooms. The shrub will channel its energy away from seed production and toward another flush of pink flowers.

## Fruits



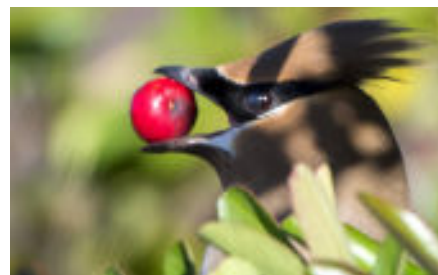
### Scorch on Apple

Fruits exposed to high temps and direct sunlight in the afternoon can be burned. Damage most often occurs on larger fruits growing on water-stressed and dwarf trees. Irrigate trees.



### Black Rot on Grape

Fruits shrivel. Leaves show tan spots with brown rings. Remove infected fruits (mummies). In winter, prune vines to increase air movement. Next spring, apply captan or copper sprays.



### Birds

Thirsty, hungry birds will attack fruits at the first sign of ripening. Place netting over plants and secure to the ground. Bunches of grapes may be protected with paper bags.

