Video of the Week:
Self-watering Planters Saves Time

FLOWERS

Deadheading Flowers

Some plants will bloom more profusely if the old, spent flowers are removed, a process called deadheading. Annuals especially, focus their energy on seed production to insure that the species survives. If you remove old flowers, the energy normally used to produce seed is now available to produce more flowers. Perennials can also benefit by lengthening the blooming season. However, some gardeners enjoy the look of spent flowers of perennials such as sedum or purple coneflower. Also, the seed produced can be a good food source for birds.

Not all plants need to be deadheaded, including sedum 'Autumn Joy', melampodium, impatiens, most flowering vines, Lythrum, periwinkle (Catharanthus), and wishbone flower (Torenia). Those that do increase bloom in response to deadheading include hardy geraniums, coreopsis, petunias, marigolds, snapdragons, begonias, roses, campanulas, blanket flowers, delphiniums, zinnias, sweet peas, salvia, scabiosa, annual heliotrope, geraniums (Pelargonium), and yarrow.

Deadheading is easily accomplished by removing spent flowers. With some plants, pinching between a thumb and finger can do this, but tough, wiry stems will require a scissors or pruning shears. (Ward Upham)

Sidedressing Annual Flowers

Modern annual flowers have been bred to flower early and over a long period of time. They are not as easily thrown off flowering by high nitrogen levels as vegetables are. As a matter of fact, providing nitrogen through the growing season (sidedressing) can help maintain an effective flower display for warm-season flowers.

Apply a high nitrogen sidedressing four to six weeks after flowers have been set out. Additional fertilizations every three to four weeks can be helpful during a rainy summer, or if flower beds are irrigated. Common sources of nitrogen-only fertilizers include nitrate of soda, urea, and ammonium sulfate. Blood meal is an organic fertilizer that contains primarily,
but not exclusively, nitrogen. Use only one of the listed fertilizers and apply at the rate
given below.

Nitrate of soda (16-0-0): Apply 1/3 pound (.75 cup) fertilizer per 100 square feet.
Blood Meal (12-1.5-.6): Apply 7 ounces (7/8 cup) fertilizer per 100 square feet.
Urea (46-0-0): Apply 2 ounces (1/4 cup) fertilizer per 100 square feet.
Ammonium Sulfate (21-0-0): Apply 4 ounces (½ cup) fertilizer per 100 square feet.

If you cannot find the above materials, you can use a lawn fertilizer that is about 30
percent nitrogen (nitrogen is the first number in the set of three) and apply it at the rate of
3 ounces (3/8 cup) per 100 square feet. Do not use a fertilizer that contains a weed killer
or weed preventer. (Ward Upham)

**ORNAMENTALS**

**How Healthy is My Tree?**

We have had a great deal of winter damage this year due to a lack of moisture and warm
temperatures interspersed with sharp drops in temperature. So how do you determine the health
of your tree?

One of the most important clues in determining the health of your trees is the amount of new growth
that tree produces. A healthy tree should have a minimum of 4 to 6 inches of new growth each year.

Check branches with the tips in the open and not shaded by the tree itself. Anything less
than 4 inches on the majority of branches suggests the tree is under a great deal of stress.

So, how do you tell where the new growth stops? Look for a color change in the stem.
New growth is often greener than that from the previous year. There is also often an area
of what looks like compressed growth where growth transitions from one year to the next.

Lastly, look at leaf attachment. Leaves are only produced on current seasons’ growth.
Therefore, new growth stops where leaves are no longer attached directly to the twig but
to side branches. However, pay attention as leaves may be appear to be attached directly
to last year’s growth but are actually borne on short spurs. If you look closely, you can tell
the difference.

All this clue tells you is whether a tree is under stress or not. It does not tell you what is
causing poor growth. This year, the most common cause by far is environmental stress
caused by the warm, dry winter.

Stress is cumulative. In other words, trees may not have completely recovered from
stressful conditions that occurred several years ago. The accumulating stress may have
damaged root systems. In some cases, root systems were damaged enough that those trees
may struggle as we enter summer. Though the roots were able to keep up with moisture
demands during the cooler spring weather, they may not be able to as temperatures rise. Such trees may suddenly collapse and die or slough off branches they can no longer support. If possible, water to a depth of 12 inches every couple of weeks we do not receive rain in order to avoid further stress. (Ward Upham)

**Oak Galls**

A number of tiny non-stinging wasps, mites and flies cause abnormal growths to develop on the leaves, twigs or branches of oak trees. These galls can include growths that are round, spiny, flattened, elongated or star-shaped. There are hundreds of different types of galls, each of which is caused by a specific insect. Galls form in response to a chemical that the insect injects into the plant tissue. Mature females lay eggs that hatch into legless grubs. Galls form around them. Larvae feed, develop, and pupate inside these galls. Adults may emerge either the same season or may overwinter inside the gall depending on the life history of that specific insect.

Generally, these gall insects do not cause significant damage to their hosts, though some of the leaf galls can cause enough deformity to make a tree unsightly. Also, severe infestations of twig galls can cause twig dieback or, rarely, tree death. However, just because a twig is covered with galls does not mean it is dead. I have seen twigs that looked like a solid mass of galls leaf out in the spring. Insecticide sprays applied when galls are noticed are ineffective because damage has already occurred. Also, larvae are unaffected because of the protection afforded by the gall. Insecticide sprays can kill emerging adult wasps and flies, but long periods of emergence and short residuals of most contact insecticides make this impractical. Stem and twig galls can be pruned if deemed to be practical and necessary. In short, this is a problem that is best ignored unless pruning is done to improve the appearance of the tree. (Ward Upham)

**TURFGRASS**

**Thatch Control in Warm-Season Lawns**

Thatch control for cool-season lawn grasses such as bluegrass and tall fescue is usually done in the fall but now is the time we should perform this operation for warm-season turfgrasses such as bermudagrass and zoysiagrass. Because these operations thin the lawn, they should be performed when the lawn is in the best position to recover. For warm-season grasses that time is June through July. Buffalograss, our other common warm-season grass, normally does not need to be dethatched.

When thatch is less than one-half inch thick, there is little cause for concern; on the contrary, it may provide some protection to the crown (growing point) of the turfgrass.
However, when thatch exceeds one-half inch in thickness, the lawn may start to deteriorate. Thatch is best kept in check by power-raking and/or core-aerating. If thatch is more than 3/4 inch thick, the lawn should be power-raked. Set the blades just deep enough to pull out the thatch. The lawn can be severely damaged by power-raking too deeply. In some cases, it may be easier to use a sod cutter to remove the existing sod and start over with seed, sprigs or plugs.

If thatch is between one-half and a 3/4-inch thick, core-aeration is a better choice. The soil-moisture level is important to do a good job of core-aerating. It should be neither too wet nor too dry, and the soil should crumble fairly easily when worked between your fingers. Go over the lawn enough times so that the aeration holes are about 2 inches apart. Excessive thatch accumulation can be prevented by not over-fertilizing with nitrogen. Frequent, light watering also encourages thatch. Water only when needed, and attempt to wet the entire root zone of the turf with each irrigation.

Finally, where thatch is excessive, control should be viewed as a long-term, integrated process (i.e., to include proper mowing, watering, and fertilizing) rather than a one-shot cure. One power-raking or core-aeration will seldom solve the problem. (Ward Upham)

FRUIT

‘Tip’ Blackberries, Black Raspberries and Purple Raspberries

The growth and fruiting habits of blackberries and raspberries are the same. The root system is perennial, surviving many years, but canes are biennial and only live two years.

First-year canes are called primocanes. They emerge from the soil and grow but with most varieties, the primocanes do not fruit. Primocanes become floricanes the second year. Floricanes fruit and then die. Each cane lives only two years.

Pinching (tipping) the top 2 to 3 inches of the primocanes increases branching and fruiting the next year. Tipping can improve yield by 3 to 5 times and is vital if you wish to have good yields.

The height and frequency of tipping varies with species and whether the variety fruits on primocanes or not. Those that do fruit on primocanes are often referred to as “everbearing.” Those that only produce fruit the second year, we will call “traditional.” Below is a listing of the different methods used.

Blackberries: Traditional - Tip at 4 feet
Blackberries: Everbearing - Tip at 25 to 30 inches high. Laterals are also tipped when they reach 25 to 30 inches.
Black Raspberries: Tip at 3 feet
Purple Raspberries: Tip at 36 to 40 inches
Red Raspberries: Do not tip. (Ward Upham)
PESTS

Bristly Rose Slug

This insect has been skeletonizing rose leaves in the Kansas City and Lawrence areas. This is not a caterpillar but is the larva of a sawfly. Close examination of this small (½ inch) larva will reveal very fine, hairlike spines in clusters.

Young larvae will remove the green layer of a leaf leaving behind a clear material. As the larvae mature, they make holes in the leaf and eventually may consume all of the leaf but the major veins.

Since these insects are not caterpillars (larvae of moths or butterflies), BT, found in Dipel and Thuricide will not be an effective treatment. However, a strong jet of water will dislodge the slugs and make it difficult for them to return to the plant. Other effective treatments include insecticidal soap, horticultural oils, spinosad (Monterey Garden Insect Sprayer Captain Jack’s Deadbug Brew) and permethrin (Eight Vegetable, Fruit and Flower Concentrate; Hi-Yield Lawn, Garden, Pet & Livestock Insect Spray). (Ward Upham)

MISCELLANEOUS

“Soil is Alive”

Soil is made up of many things, but did you know that soils are alive just like the plants that grow in them? Along with non-living particles like sand or clay, soil houses both macro- and micro-organisms that sustain life both below and above ground. The book “Building Soils for Better Crops” described soil as a diverse community of over 100,000 living organisms. Moles, rabbits, earthworms, bacteria, fungi, and insects all play an important role in the soil ecosystem and in plant health. Soil organisms, whether they be small or large, keep ecosystems in balance, move nutrients around, break down organic matter, make nutrients available and aerate the soil. For examples, earthworms may not seem important to soil health, but they are one of the most important soil organisms. According to “Building Soils for Better Crops,” earthworms can create 800,000 underground channels per acre of soil that allow water to reach greater depths and provide more efficient infiltration rates during rain events. Earthworms are also remarkably good at moving soil particles. “Building Better Soils for Better Crops” states that on 1 acre, earthworms can move 1,000 tons of soil per year. Woah! That’s equivalent to over 100 African Elephants!

Click this link (https://bit.ly/1MiGJT5) to view a fun and informative short video called “Soils Are Living” from the Soil Science Society of America as part of their 2015 Year of Soils effort. If you want to read more about soil organisms, follow this link.

(This educational series is made available partially by the North Central SARE Program).

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