HORTICULTURE TIPS

Division of Agricultural Sciences & Natural Resources * Oklahoma State University **May 2018**

GARDEN TIPS FOR MAY!

David Hillock

Trees and Shrubs

- Prune and feed azaleas immediately after blooming.
- Insect Alert: (EPP-7306)
  - Bagworms on juniper and arborvitae. (Late May)
  - Elm leaf beetles and larvae on elms. (Late May)
  - Mimosa webworms on mimosa and honeylocust.
  - Lace bugs on sycamore, pyracantha and azalea.
- Soak new transplants and newly planted trees unless rainfall is abundant.
- Pine needle disease treatments are needed in mid-May.

Turfgrass

- Cool-season lawns can be fertilized again. If you did not fertilize cool-season grasses in March and April, do so now.
- Warm-season lawns may be fertilized again in May. (HLA-6420)
- Seeding of warm-season grasses such as bermudagrass, buffalograss, zoysiagrass and centipedegrass is best performed in mid-May through the end of June. The soil temperatures are warm enough for germination and adequate growing season is present to promote winter hardiness.
- Dollar spot disease of lawns can first become visible in mid-May. Make certain fertilizer applications have been adequate before ever applying a fungicide. (EPP-7658)
- Nutsedge plants become visible during this month. Post-emergent treatments are best applied for the first time this month. Make certain warm-season grasses have completed green-up.
- The second application of pre-emergent annual grass herbicides can be applied in late May or early June, depending upon timing of first application. Check label for details.
- Vegetative establishment of warm-season grasses can continue. (HLA-6419)

Flowers

- Annual bedding plants can be set out for summer color.
- Plant summer bulbs such as cannas, dahlias, elephant ear, caladiums and gladiolus.
- Shake a leaf over white paper to look for spider mites. If the tiny specks begin to crawl, mites are present.

Water Gardens

- Clean out water garden and prepare for season. Divide and repot water garden plants.
- Begin feeding fish when water temperatures are over 50°F.

Fruits and Vegetables

- Plant watermelon, cantaloupe, cucumber, eggplant, okra, sweet potatoes, etc.
- Fruit spray programs should be faithfully continued during the next several weeks.

- Late May is the best time to control borers in the orchard. Check for label recommendations and controls.

Dothistroma Needle Blight of Pine

David Hillock

Dothistroma needle blight is a serious disease of pine trees in Oklahoma that causes premature needle drop. The disease affects both landscape plantings and pines in windbreaks. Austrian (*Pinus nigra*) and ponderosa (*P. ponderosa*) pines are highly susceptible while Scots or Scotch (*P. sylvestris*) pine is resistant to this disease. When Dothistroma needle blight is left uncontrolled, trees may be weakened and eventually killed.

Symptoms

Although needles are infected in the spring, the symptoms do not develop until the fall. Early symptoms consist of yellow and tan spots that may be bordered by a water-soaked band. As the spots enlarge, the tips of the needles will die while the needle bases remain green. The dead portion of the needle may break off leaving a blunted tip. Needles may be prematurely shed or cast from the tree, especially needles on lower branches. Winter desiccation injury causes symptoms similar to Dothistroma needle blight. However, needles damaged by winter desiccation will show browning of tips to roughly the same point on the needle. The amount of tip browning caused by Dothistroma needle blight is variable.

Disease Cycle

In late winter, fruiting structures are visible as small, erumpent black dots along the blighted needles. Fruiting structures mature in mid to late spring and conidia (spores) are spread by rain splash through the growing season (May to October). Although infections occur throughout the growing season, symptoms are not evident until fall. Two seasons are required for the pathogen to complete its lifecycle.

Management

Fallen needles should be removed from the ground and discarded in the trash to reduce inoculum (pathogen propagules). This is a method of sanitation and it helps lower disease severity the next season. Sanitation is not completely effective since some needles may remain attached to branches. Fungicides can be applied for preventative control of Dothistroma needle blight. New needles are resistant, but become susceptible by mid-summer. Older needles are susceptible throughout the growing season. A copper containing fungicide can be applied once the new needles are fully expanded (usually mid-May). A second application seven to ten days later may be helpful especially if weather is cool or rainy. Generally, fungicide applications are not needed in the summer, since hot and dry conditions are unfavorable for the disease. Thorough coverage is essential and hiring a tree care professional to treat large trees is advised. If the disease is severe, several years of meticulous treatment may be required to control Dothistroma needle blight.

Powdery Mildew

David Hillock

Powdery mildew is a common foliage disease in late April and May. This disease causes a white, powdery-like covering on the upper portions of the leaf. Powdery mildew starts off as small circular areas, but soon covers large portions of the leaf surface. Plants commonly attacked by powdery mildew include apple, crabapple, crapemyrtle, honeysuckle, lilac, oak, pecan, phlox, photinia, rose, willow and zinnia. Powdery mildew is sometimes found on catalpa, euonymus, quince, privet and sycamore.

When choosing new plants for the landscape, look for species and cultivars that are resistant to powdery mildew. Newer cultivars of many shrubs and flowers have been selected for powdery mildew resistance.

Lime-sulfur and copper fungicides are organic products that can be used for powdery mildew control. Do not use sulfur or oil within one month of each other or plant damage can occur. Some cultivars of roses are sensitive to sulfur products and may have leaf damage after an application. Some species and cultivars may be sensitive to copper sprays, discontinue use if plant phytotoxicity occurs.

Other plant protection products available for powdery mildew include synthetic fungicides such as Funginex®, Halt®, Immunox®, Fung-Away®and Fungi-Fighter®. These products are systemic fungicides and provide 10-14 days of control.

Plant Profile - Mahonia

David Hillock

Mahonia is a group of evergreen groundcovers or small shrubs. The most noteworthy landscape characteristics are the brilliant yellow spring flowers followed by the grape-like clusters of fruits. Foliage can also be quite striking – bright to dark, glossy green in summer, turning deep reds and purples in winter.

In the south, Leatherleaf Mahonia (*M. bealei*) seems to be the popular species; however, two common species used frequently further north are Oregon Grapeholly (*Mahonia aquifolium*) and Creeping Mahonia (*M. repens*), both of which do very well in Oklahoma. Several other species exist, but may not be readily available. Species that might be worth the try if you can find them and where hardy are – *Mahonia japonica*, *Mahonia* x *media*, *Mahonia gracilis*, *Mahonia nervosa*, and *Mahonia* x *wagneri*. A more recent type that offers a finer texture with slender, bamboo-like foliage is *Mahonia eurybracteata* ‘Soft Caress’. *Mahonia* is closely related to *Berberis*. Some authorities have now lumped many of the plants in the genus *Mahonia* into the genus *Berberis* (see GRIN). Many other authorities continue to list *Mahonia* separately.

Oregon Grapeholly is an upright shrub 3 to 6’ tall and may sucker forming colonies. Leaves are pinnately compound with 5 to 9 leaflets and spiny tips. New leaves are reddish-bronze as they emerge turning a light, glossy yellow-green ending up a lustrous deep green in summer; fall and winter color can be a purplish bronze depending on exposure. Flowers are bright yellow and appear in early spring. Fruits are blue-black in color and appear mid to late summer. Several cultivars of this species exist; ‘Compacta’ is a dwarf form to about 3’ high. *M. aquifolium* ‘Orange Flame’ is a spectacular variety that produces rust/orange colored foliage in spring, eventually turning green for the summer, followed by a red-wine color in the fall.

Creeping Mahonia is a low growing groundcover (10 to 18” high) that spreads by stolons. Leaves are a dull blue-green in summer turning rich purple in winter. Flowers appear early spring and are deep yellow forming black, grape-like fruit with a blue cast on them.

Leatherleaf Mahonia is stiff and upright, 6 to 8’ tall. Leaves are dull blue-green with 9 to 13 leaflets with prominent spines. Flowers are lemon yellow, very fragrant and quite effective in early spring followed by bluish berries in early to mid-summer that the birds seem to like.

Mahonia prefer moist, well-drained acid soils. They grow in shade to part shade, but will tolerate full sun if provided adequate moisture and protection from wind. Oregon Grapeholly and Leatherleaf Mahonia can become

gangly looking with age. Cut out oldest stems about every other year after flowering to encourage new growth from the bottom.

Mahonia have a coarse texture and work well with finer textured plants. The shrub forms can be used as specimens or with other shrubs in borders or in a woodland setting; often used as foundation plantings.

Controlling Caterpillar Pests

David Hillock

Caterpillar pests are common on many landscape plants and can cause mild to severe damage depending on plant species and number of caterpillars present. Control of caterpillars may not be necessary in some instances because their numbers are kept in check by numerous natural enemies such as parasitic flies and wasps, disease, predator insects and birds.

On shade trees, even if the caterpillars become numerous, a healthy tree can withstand a complete defoliation early in the growing season. New transplants or trees weakened by weather or other factors may require control.

Hand-picking caterpillars from flowering plants and vegetables is also an effective method. Most caterpillars are very susceptible to products containing *Bacillus thuringiensis*, such as Javelin®, Dipel® or Thuricide®. This product is less effective on older larvae because they must consume it for effective control. Young and older caterpillars can also be controlled with the naturalyte ingredient spinosad that is found in Conserve® and some retail insecticide products as well as other insecticides that are labeled for these pests in ornamentals. Control is best achieved before caterpillars become full-grown, and it is essential to get thorough coverage, since they are often slightly protected within their "nest". Of course, it is important to select the right product for the given situation and to always read and follow product labels directions.

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