



Canola

Growers in Arkansas are looking at nontraditional oil seed crops as energy prices rise and such crops become more profitable. Canola in Arkansas has been in the ground for about seven months. The clinic is starting to see samples with both insects and diseases.

Black rot, a bacterial disease caused by *Xanthomonas campestris*, is unsightly but doesn't usually do much damage to yield. Infected leaves develop a bright yellow discoloration on leaf edges. Large, angular, water-soaked spots develop along leaf margins and veins. Leaf veins in infected areas may appear dark in color. Chemical control is not usually recommended. Cultural controls consist of crop rotation, and furrow irrigation instead of overhead irrigation.

White mold, caused by *Sclerotinia sclerotiorum*, is one of the most damaging diseases of canola. Stem rot starts as narrow, elliptical, sunken, light tan-to-gray lesions in the mid to lower stem. Lesions may be more than a foot long. Infected stems often collapse. When the stems are cut open, black, irregular sclerotia, about 1/4 inch long, can be found inside the diseased stems. This is usually a springtime disease that is more prevalent at bloom under wet conditions. Quadris is the fungicide of choice. It must be applied at first flowering prior to infection to be most effective.

Gray mold, caused by *Botrytis cinerea*, is often a secondary infection that starts on plant tissues damaged by insects or frost. The disease can be recognized by the development of fuzzy, gray, mycelial growth on leaves, flower, and stems during wet, humid weather. Botrytis infections have been associated with aphid damage.

Green peach aphids are the most common aphid known to damage canola. Pods are often distorted and twisted by heavy aphid feeding. Aphids can debilitate and, under some conditions, kill plants. They are usually found in colonies under the leaves. Aphids are attracted to the color yellow. When scouting, check yellowed leaves first. When aphids exceed five per leaf, or 20% infested plants at the seedling and rosette stages, plants should be sprayed. They should also be sprayed at bud and early bloom when infested plants exceed 15%. Capture 2Ec, Proaxis 0.5CS, Warrior Z, and Methyl Parathion are labeled for aphid control on canola.



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Aphid damage



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Pod distortion caused by aphids



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Liriope

Liriope, also known as liriopé or lilyturf, is a versatile perennial. It grows in sun or shade and is not particular about soil except that it requires good drainage. Liriope is most commonly used as an evergreen ground cover or edging plant. There are several cultivars available with grass-like foliage ranging in color from blue to green to variegated. It flowers with spikes of lavender-to-blue flowers late summer to fall. Liriope grows 9"–16" tall,

depending on variety and soil fertility. It is so hardy and problem free that it is sometimes considered invasive in the garden, especially *Liriope spicata*.

Although problems are few, we sometimes see Anthracnose leaf spot on the foliage. Brown-to-gray spots appear on the leaves, especially leaf tips and leaf margins. Heavy infections sometimes kill entire leaves as the spots coalesce. Avoidance of overhead irrigation and the application of an ornamental fungicide such as Daconil usually provide excellent control of anthracnose.

Where soils are boggy it is not uncommon to find *Phytophthora* root and crown rot. The pathogen is *Phytophthora palmivora*. Symptoms are yellowed leaves that appear water-soaked, discolored, and rotted at the base. Affected leaves become chocolate brown near the base and are easily pulled from the crown. The pathogen requires abundant free moisture in the soil to reproduce and infect.

Purchase plants with healthy, green foliage that is firmly attached to the crown. Avoid over-watering, plant crowding, and planting too deep. Do not plant in areas where water is prone to stand. Fungicides available to the homeowner only suppress the disease at best. If the bed is small, replacement of the soil and replanting may solve the problem.

Liriope anthracnose



Sherrie Smith University of Arkansas Cooperative Extension



Phytophthora crown and root rot



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Septoria leaf spot on phlox



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Powdery mildew on phlox



The Dow Gardens Archives, Dow Gardens,
www.forestryimages.org.



Jim Robbins/University of Arkansas Cooperative Extension

Phlox

Tall garden phlox (*Phlox paniculata* and *Phlox maculata*) is a very pretty plant that comes in colors ranging from pure white, orange, and blue violet through all the pink and magenta shades. It has a long bloom period beginning in late spring to midsummer, depending on cultivar. Some varieties, such as Carolina phlox "Miss Lingard," repeat-bloom. Many have a sweet fragrance. They all make lovely, long-lasting cut flowers. Size ranges from 18 inches to nearly three feet in height. They do best in rich, moist soil in full sun.

Some cultivars are very susceptible to powdery mildew. Symptoms are a powdery, white-grayish film on the surface of the leaves. As a rule, maculata varieties are



more resistant than paniculata varieties. Nursery catalogs often mention whether a given variety has resistance to powdery mildew. Phlox 'David' has excellent powdery mildew resistance in a lovely white. 'Franz Shubert' in a lilac blue has good resistance also.

An ornamental or rose fungicide will suppress powdery mildew. Another problem that is less commonly seen is Septoria leaf spot. Symptoms are dark brown-to-blackish spots with paler centers. Badly infected leaves may turn yellow and fall off. This is seen more often under crowded, nursery conditions with overhead irrigation than in the home garden. Again, an ornamental fungicide gives good protection.

Peach

Bacterial leaf spot caused by *Xanthomonas campestris* pv *pruni* is one of the most serious diseases of peach and nectarine. It also attacks plum and apricot.

Symptoms begin on the leaves as reddish-brown spots that are angular in shape. The spots sometimes appear to be nearly black. The centers of the spots may fall out, giving a shot-hole appearance. Infected leaves turn yellow and eventually fall off. In severe cases, trees may lose all their leaves.

The fruit itself may become infected with brown or black bacterial spots that eventually become cracked or pitted in appearance. The bacterium also causes lesions on stems and branches that ooze bacteria when conditions are favorable. Bacterial leaf spot is difficult to control.

There is no adequate chemical control for the disease. It can be suppressed with spring applications of a copper fungicide such as Kocide. Applications should be made at bud break. Cleaning up fallen leaves, twigs, and fruit, and cutting out infected branches are helpful. The best preventative is to plant resistant varieties.



Bacterial leaf spot

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Wheat

We are collecting isolates of wheat scab for Dr. Milus. Please send any suspicious samples to the lab with information about variety, location, planting date, etc. Thanks.