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Blackberry and Dewberry: Biology and Control[1]

J. A. Ferrell and B. A. Sellers[2]

There are numerous *Rubus* (blackberry and dewberry) species in the southeastern United States, and many of them are found in Florida. Blackberry is commonly found in fence rows, ditch banks, and pastures, and can be overlooked for extended periods of time. However, lack of management can give rise to thickets that are difficult to control.

Blackberry and dewberry are often viewed simply as nuisance weeds that reduce grazing in a portion of the field. This may not seem that detrimental. However, severe financial losses can occur if cattle are injured by these growing thickets. For example, a bull's reproductive organs can be severely damaged by blackberry or dewberry thorns. Lesions or scratches from the thorns may result in infection or complete loss of reproductive performance. Lactating cows and dairy cows are not safe either. Thorns can scratch and cause infections of the udder, which may result in lower milk production. Therefore, blackberry infestations can result in monetary losses from both reduced grazing and potential animal injury.

Identification

It may be difficult to distinguish dewberry and blackberry when looking at a single leaf. However, the overall plant appearance and growth habits of these two species are quite different. Dewberry has a low, vine-like growth habit and rarely reaches heights greater than 2 feet (Figure 1). Blackberry has a very upright growth pattern and commonly reaches 3–6 feet in height (Figure 2). Dewberry commonly has slender thorns with red hairs on the stem (Figure 3), while blackberry has hard, tough thorns and no hairs. Additionally, the seeds in dewberry fruit are much larger and tougher than those in blackberry.

Figure 1. Dewberry has a trailing or vine-like growth pattern.

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2. J. A. Ferrell, associate professor, Agronomy Department; and B. A. Sellers, associate professor, Agronomy Department, Range Cattle Research and Education Center, Ona, FL; UF/IFAS Extension, Gainesville, FL 32611.

Figure 2. Bush-type blackberry has upright growth.

Figure 3. Dewberry stems have slender thorns with red hairs.

Biology

Blackberry is a perennial, thicket-forming shrub common throughout the southeastern United States. Under each plant is a large lateral-growing root system that sprouts and produces additional plants. The rhizomatous root system is perennial, while the aboveground canes are biennial (living for two years). The first year, the canes emerge and grow rapidly; the second year, the canes bud and produce flowers and fruit. The canes subsequently die after fruiting.

Control

Herbicide application timing is important for effective blackberry control. Blackberry is most sensitive to herbicides when blooming in late spring and in the fall prior to frost. Applications made soon after emergence from winter dormancy or during fruiting are generally less effective. It is also important that the plants are not drought-stressed at the time of herbicide application.

Mowing is an effective practice if the goal is to keep blackberry at a manageable size until herbicide treatment is warranted. However, controlling blackberry by mowing alone is difficult and often ineffective. The large underground root structures are difficult to kill with mowing, and resprouting of the cut stems is common. Additionally, blackberry propagates from both seed and rhizomes. Therefore, mowing at bloom reduces seed production, but does little to stop the spread of blackberry rhizomes.

However, mowing can be an effective component when combined with herbicides. Large, dense thickets often have many dead canes with no leaves or two-year-old canes that possess old leaves. Old leaves do not absorb herbicide sprays as effectively as new foliage and are not as susceptible to herbicide applications. Additionally, dead canes can intercept the spray and decrease herbicide contact with susceptible foliage. Therefore, mowing reduces the size of the thicket and makes herbicide application easier.

Herbicides should **not** be applied in the same growing season as mowing. Applying herbicides soon after mowing often leads to ineffective or inconsistent control. The most effective strategy is mowing followed by six months of active blackberry regrowth before herbicide treatment. For example, in North Florida, if mowing takes place in October, it is often best to delay herbicide application until the following August because blackberry does not actively grow from November to February.

Soon after herbicide application it may be necessary to mow the dead blackberry plants to improve grazing in the treated area. However, it is best to allow the herbicide to work for approximately six weeks before the dead canes are mowed and removed. This allows the herbicide sufficient time to act before the treated plants are destroyed.

Herbicides

Currently, several herbicides list blackberry on their label. The most effective herbicides are metsulfuron, triclopyr ester (Remedy Ultra, others), PastureGard HL, and Telar. Velpar, Weedmaster, and 2,4-D are not recommended because individual plants rarely die and thicket density will not be reduced.

PastureGard HL (triclopyr + fluroxypyr) and triclopyr ester (Remedy Ultra, others) can safely be applied to bermudagrass and bahiagrass. Triclopyr ester or Pasturegard HL at 2 pints per acre applied when blooming is effective, but retreatment the following year may be required to achieve 100% control. These herbicides cause rapid blackberry defoliation (relative to metsulfuron and Telar, which are more slow acting) while controlling many other broadleaf species. Triclopyr ester will not control dewberry. Pasturegard HL applied at 2 pints per acre is more effective on dewberry, but only fair control (60% or 70%) should be expected. Pasturegard HL and triclopyr ester can be effective when applied in the spring or fall. However, research has shown that fall applications are generally more effective than spring applications.

Research has shown that metsulfuron products are the most consistent herbicides for control of blackberry. Applications made in spring or fall have proven equally effective. However, activity is slow and may take two or three months to show significant control.

Telar (chlorsulfuron) is closely related to metsulfuron, but can safely be applied to bermudagrass and bahiagrass. Telar at 1.0 oz/A is effective on blackberry, but will not likely control other common pasture weeds.

Summary

Complete blackberry and dewberry eradication is difficult and will likely require multiple applications and/or tactics. When relying solely on herbicides to control these species, it is best to spray when blooming or in the fall prior to frost. If a mowing strategy is employed, at least six months of active regrowth should occur prior to herbicide application, and at least six weeks should pass after herbicide application before removing dead canes.