Flat-top Goldenrod: Make management plans this fall for 2026

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It is usually September or so when calls start to come in concerning flat-top goldenrod (*Euthamia caroliniana*) – a common plant found in mismanaged pastures. Typically, we see this weed in pastures with low soil pH growing with companion weed species including broomsedge, blackroot (*Pterocaulon pycnostachyum*), dogfennel (*Eupatorium capillifolium*), yankeeweed (*Eupatorium compositifolium*), and thin paspalum (*Paspalum setaceum*), among others. Flat-top goldenrod is not a true goldenrod species, but it was once classified in the same genus as the commonly known goldenrod (*Solidago*) species.

Figure 1 *Flat-top goldenrod is a perennial plant that often infests poorly maintained pastures. Multiple branches give the plant a flat-top appearance. Photograph by B. Sellers.*

Flat-top goldenrod is a perennial plant that grows to approximately 3 feet in height. Plants tend to grow in colonies and spread through both seed and a creeping rhizome root system. Leaves are alternate, extremely narrow and similar in width and length as the leaves of dogfennel. Leaves are often shed during flowering, except near the top of the plant. Flat-top goldenrod appears as a single stem when it emerges in the spring, but the stem begins to branch as early as mid- to late-May. The branches grow to produce a flat-topped appearance (Figure 1). Flowering occurs from September through November, and the flat-topped inflorescence consists of many yellow ray and disk flowers (Figure 2).

Flat-top goldenrod is easily confused with dogfennel early in the growing season. The easiest way to tell the two apart is to look at the stem. If the stem is hairy, succulent, and easy to break in half, it is dogfennel. If the stem is somewhat angled, nearly woody, and hard to break in half, it is more than likely flat-top goldenrod. Additionally, flat-top goldenrod tends to have a reddish color on the lower half of the

stem and becomes woody with age. Another way to tell the difference between the two species is through herbicide applications later (after June) in the growing season. While herbicides will continue to control dogfennel throughout much of the year, it is often too late in the season to obtain any control of flat-top goldenrod. In all cases, some burn on flat-top goldenrod plants is observed, but death of the plant rarely occurs; therefore, dogfennel will be controlled, while flat-top goldenrod plants will remain virtually unchanged.

Figure 2. *Flat-top goldenrod inflorescences contain many disk and ray flowers. Photograph by B. Sellers.*

Control of flat-top goldenrod can be achieved with April applications of 2,4-D, Banvel (dicamba), dicamba + 2,4-D, or GrazonNext HL provided the highest level of control. Our first attempt at controlling flat-top goldenrod was not fruitful. No herbicide (we tested those in Figure 3 as well as several others) provided any level of control during the flowering stage. Our timing studies indicate that the optimum time for herbicide application is from April to June. Applications after June result in very little control of flat-top goldenrod. Our highest level of control has always been obtained in late April to early May. If the plant has begun branching, control with herbicides will be reduced, regardless of the time of year (we have observed individual plants branching as early as May). Keep in mind also, that if the soil is extremely dry, herbicide activity will be reduced slightly on flat-top goldenrod, but to a lesser degree than when flat-top goldenrod begins branching.

It would also be wise to soil sample these pastures as the soil pH is most likely lower than required for optimum forage production. If you have further questions concerning this weed, please contact me at sellersb@ufl.edu or (863) 374-7048.

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Upcoming Event

September 9, 11:00 to 11:45 a.m. EST – **Ona Highlight 'Gut health: Unlocking cow-calf potential with probiotics**' with Dr. Philipe Moriel, associate professor, beef cattle nutrition and management specialist, UF/IFAS Range Cattle Rec, Ona. Visit our online calendar at our website listed below for the link to register or call (863) 735-1001 to attend in person at the Center.

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UF/IFAS Range Cattle REC - 3401 Experiment Station Rd., Ona - http://rcrec-ona.ifas.ufl.edu/

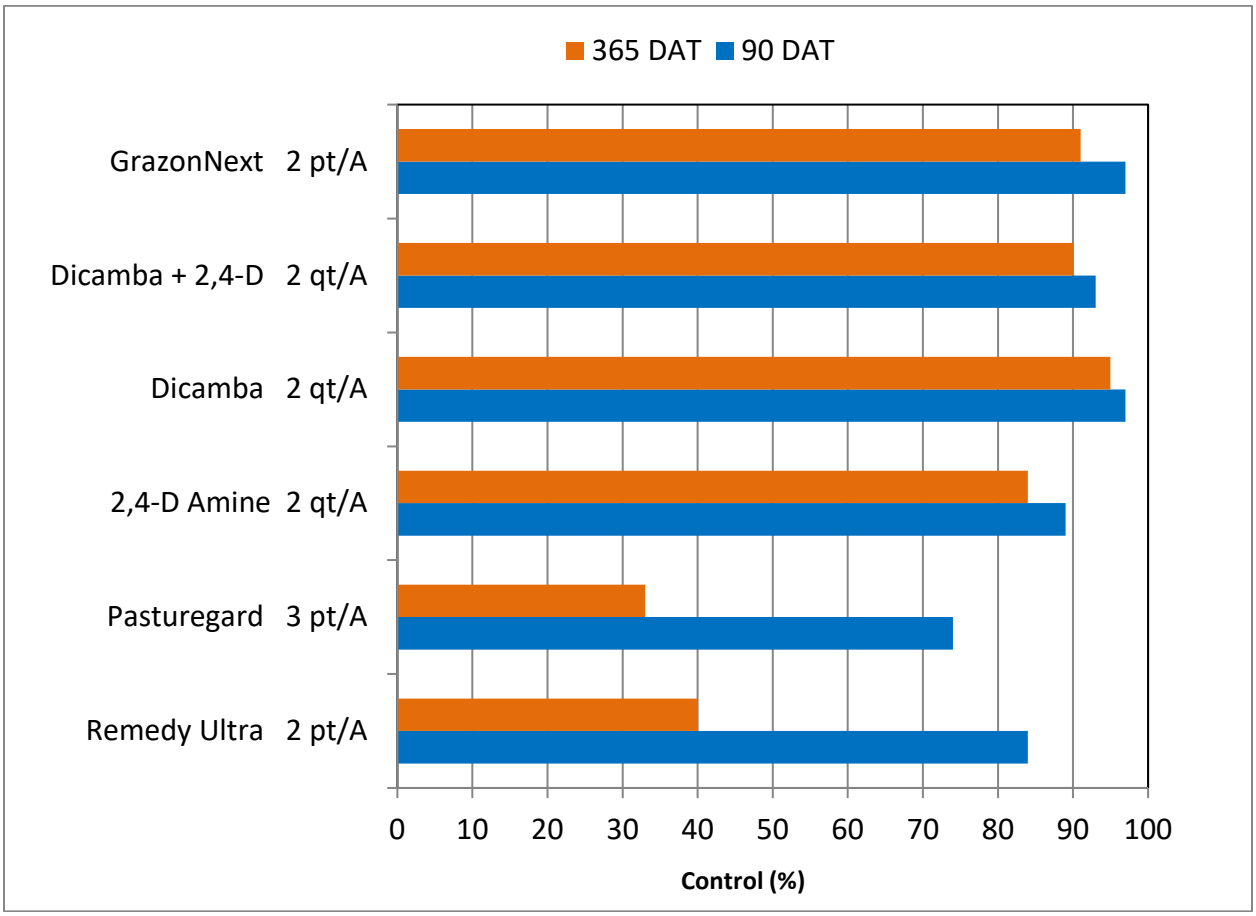

Figure 3. Control of flat-top goldenrod 90 and 365 days after a spring application. All treatments included a non-ionic surfactant at 0.25% v/v.