Brachypodium distachyon (L.) Beauv.

Annual false-brome

Family: Poaceae
Range: Common in California, but scattered throughout the other western states, including Oregon, Colorado and Texas.
Habitat: Dry slopes and fields, roadsides, disturbed grassland, margins of shrub thickets. Tolerates thin rocky soil and partial shade in oak woodlands.
Origin: Native to southern Europe. Likely an accidental introduction into North America.
Impacts: It is a poor forage grass because of its fibrous stems, little foliage, and firm spikelets with awned florets.
California Invasive Plant Council (Cal-IPC) Inventory: Moderate Invasiveness

Annual false-brome is a winter annual to 2 ft tall, with spikes that are often tinged purplish. Plants are sometimes branched at the base. The stems are erect or flat with the tips turning upward, usually lacking hairs except at the densely hairy nodes. The ligule is membranous and 2 to 3 mm long, the top irregularly jagged or fringed with short hairs, and the upper surface minutely hairy.

The inflorescence is a spike-like raceme, 1 to 3 inches long, with 1 to 6 spikelets per stem. Spikelets are nearly sessile, alternate, ascending to erect, laterally flattened, mostly 1 to 1.5 inches long, 0.25 to 0.5 inch wide. The spikelet contains numerous florets with straight awns 0.25 to 0.75 inch long. Plants reproduce only by seed. The florets fall near the parent plant and probably disperse to greater distances with animals, vehicle tires, and human activities. Germination occurs primarily in fall or early winter after the first significant rain of the season. There is no information about the longevity of the seed in the soil, but it is expected to be a couple of years.

NON-CHEMICAL CONTROL

Mechanical (pulling, cutting, disking)	Small infestations can be controlled with hand pulling, mowing, or tillage. The timing of mowing should be before viable seed production but after most soil moisture has been depleted to prevent regrowth. Shallow cultivation shortly after the main flush of germination and again a little later can eliminate most seedlings.
Cultural	Prescribed burning in early summer when plants were capable of carrying a fire was shown to significantly reduce the population of annual false-brome. Grazing has not been tested on the control of this species, but due to its poor forage quality and low palatability, such a strategy would likely require short-duration, high-intensity grazing just before seedhead production. Poor grazing practices would be expected to increase populations.
Biological	No known biological agents are available for the control of annual false-brome.

CHEMICAL CONTROL

There are no specific reports on the chemical control of annual false-brome. It is expected that control strategies will be similar to those for other annual grasses, including the various *Bromus* species. Directions for use may vary between brands; see label before use. Herbicides are listed by mode of action and then alphabetically. The order of herbicide listing is not reflective of the order of efficacy or preference.

LIPID SYNTHESIS INHIBITORS	
Fluazifop *Fusilade*	**Rate:** Broadcast foliar treatment: 1 to 1.5 pt product/acre (4 to 6 oz a.i./acre). Spot treatment: 0.5% v/v solution

	Timing: Early postemergence before boot stage. **Remarks:** Fluazifop is grass-selective and will not damage broadleaf species. It has no soil activity. To select for perennial grasses, apply before perennials emerge. Include crop oil concentrate surfactant or non-ionic surfactant.
Sethoxydim *Poast*	**Rate:** 1.5 to 2 pt product/acre (4.5 to 6 oz a.i./acre) **Timing:** Postemergence before boot stage. **Remarks:** Sethoxydim is grass-selective and will not damage broadleaf species. It has no soil activity. To select for perennial grasses, apply before perennials emerge. Include crop oil concentrate surfactant.
AROMATIC AMINO ACID INHIBITORS	
Glyphosate *Roundup*, *Accord XRT II*, and others	**Rate:** 1 to 2 pt product (*Roundup ProMax*)/acre (0.56 to 1.1 lb a.e./acre) **Timing:** Postemergence in late winter to early spring. Apply to rapidly growing, non-stressed plants after most seedlings have emerged. If possible, apply before desirable perennials have emerged. **Remarks:** Glyphosate is nonselective and has no soil activity.
BRANCHED-CHAIN AMINO ACID INHIBITORS	
Imazapic *Plateau*	**Rate:** 4 to 12 oz product/acre (1 to 3 oz a.e./acre) **Timing:** Preemergence in late summer or fall, or postemergence in early spring. In colder climates, spring applications after snow melt are better than fall treatments. The stage of growth of annual grasses can be critical to the effectiveness of imazapic. Late winter applications when annual grasses have 1 to 4 leaves and have not tillered can be effective, but when grasses are larger control is not as effective. **Remarks:** Imazapic has mixed selectivity. It tends to favor members of the Asteraceae. It has long soil residual activity. Imazapic can tie up in litter and its efficacy may be very much reduced under situations where there is heavy thatch on the soil surface. Imazapic is not registered for use in California.
Sulfometuron *Oust* and others	**Rate:** 0.75 to 5 oz product/acre (0.56 to 3.75 oz a.i./acre) **Timing:** Preemergence or postemergence. Fall and spring applications can both be effective, but fall applications may give full season control. In locations receiving less than 20 inches of annual precipitation, rates for control of annual bromes range from 0.75 to 2 oz product/acre; in locations receiving more than 20 inches annual precipitation, rates range from 3 to 5 oz product/acre. **Remarks:** Sulfometuron has mixed selectivity. It can cause minor damage to some native perennial grasses and has fairly long soil residual activity. Higher rates may increase control but will also give more bare ground.
Sulfosulfuron *Outrider*	**Rate:** 1.33 to 2 oz product/acre (1 to 1.5 oz a.i./acre) **Timing:** Early postemergence. **Remarks:** Sulfosulfuron has mixed selectivity and has fairly long soil residual activity. It is a newer herbicide so little is known of how it will act in many areas.
CONTACT PHOTOSYNTHETIC INHIBITORS	
Paraquat *Gramoxone*	**Rate:** 0.75 to 2 pt product/acre (3 to 8 oz a.i./acre) **Timing:** Postemergence to rapidly growing plants. More effective on smaller plants. **Remarks:** Paraquat is nonselective on annual species. It is a non-systemic herbicide that only kills contacted foliage and has no soil activity. Paraquat is a restricted use herbicide that is highly toxic to animals. The formulation has a stenching agent.

RECOMMENDED CITATION: DiTomaso, J.M., G.B. Kyser et al. 2013. *Weed Control in Natural Areas in the Western United States*. Weed Research and Information Center, University of California. 544 pp.