Schismus arabicus Nees; Arabian mediterraneangrass
Schismus barbatus (Loefl. ex L.) Thell.; common mediterraneangrass

Mediterraneangrasses

Family: Poaceae
Range: Southwestern U.S., including California, Arizona, Nevada, New Mexico and Utah. Common mediterraneangrass is also found in Texas.
Habitat: Open, disturbed and undisturbed areas, roadsides, desert and semi-desert shrubland, dry river beds, mud flats, waste places. Common mediterraneangrass is also found in coastal scrub.
Origin: Both species are native to southern Europe, but some authorities believe they are also native to southwestern Asia and North Africa.
Impacts: Mediterraneangrasses can displace native annual vegetation and help to increase the fire frequency in desert ecosystems. Fires fueled only by dried *Schismus* species are generally patchy and seldom burn hot enough to ignite small shrubs. However, in areas where larger exotics also grow around the bases of shrubs, *Schismus* species can carry fire across the open areas to ignite the larger exotics, which often burn with intensity great enough to kill the shrubs. In some areas, an abundance of *Schismus* species may contribute to the type conversion of desert shrubland into annual grassland.
California Invasive Plant Council (Cal-IPC) Inventory: Both species are Limited Invasiveness

Both species are generally tufted cool-season annuals in the desert and semi-desert regions of California. They are low growing, reaching 8 inches tall, and have fine foliage and small, dense panicles to about 2 inches long. The ligules consist of a ring of hairs about 0.5 to 1 mm long. Mediterraneangrasses also have a distinctive hair collar margin and membranous auricles 2 to 4 mm long on the lower leaves.

Flowers are present from March through May and are self-compatible. Spikelets are small (4 to 6.5 mm long), lack awns, and have 3 to 8 florets per spikelet. Plants reproduce only by seed. Seedlings mature rapidly as the temperature warms. Arabian mediterraneangrass seedling roots can tolerate complete dryness for about a month and continue to grow normally upon rehydration. Seeds generally fall near the parent plant, but some plants with intact panicles can break away at ground level and tumble in the wind, dispersing florets and seeds. There is no information on seed longevity in the soil seedbank, but only a small percentage of the seedbank appear to germinate in a given year. However, with such small seeds, it is not likely that the seedbank remains for a very long time.

NON-CHEMICAL CONTROL

Mechanical (pulling, cutting, disking)	Because of their small size, hand removal or string trimming of mediterraneangrasses is impractical and can cause significant disruption of the soil surface, which may promote further weed establishment. Plowing, disking, or scraping may initially reduce surface biomass, but soil disturbance and reduced shading select for the reinvasion of these grasses.
Cultural	Mediterraneangrasses are good forage species and livestock grazing can remove their biomass. However, in the long term, grazing will increase the population of the annual grasses due to reduced cover and increased disturbance. Prescribed fire generally promotes the growth of mediterraneangrasses. The small seeds that fall to the ground are not damaged by the high temperatures of the fire. In addition, fire removes the litter layer and can increase soil nutrients, thus leading to increases in annual grasses. Thus, prescribed burning is not

	recommended for the control of mediterraneangrasses.
Biological	No biological control agents are available for the control of mediterraneangrasses. A black smut, *Ustilago aegyptica*, can form on the spikelets. Natural infestations of smut do not seem to be widespread or severe enough to significantly affect populations.

CHEMICAL CONTROL

The following specific use information is based on reports by researchers and land managers. Other trade names may be available, and other compounds also are labeled for this weed. 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	
Clethodim *Select*, *Envoy*	**Rate:** 1 to 2 pt product (*Envoy*)/acre (2 to 4 oz a.i./acre) **Timing:** Postemergence before plants produce viable seeds. **Remarks:** Clethodim is grass-selective and will not damage broadleaf species. It also has no soil activity. Include crop oil concentrate surfactant or non-ionic surfactant. Clethodim has not been tested on mediterraneangrasses, but is expected to provide control. Note that *Envoy* formulation is 1 lb a.i./gallon, *Select* is 2 lb a.i./gallon.
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 product. **Timing:** Early postemergence; best before boot stage. **Remarks:** Fluazifop is grass-selective and will not damage broadleaf species. It also has no soil activity. Include crop oil concentrate surfactant or non-ionic surfactant. Fluazifop has not been tested on mediterraneangrasses, but is expected to provide control.
Sethoxydim *Poast*	**Rate:** 1.5 to 2 pt product/acre (4.5 to 6 oz a.i./acre) **Timing:** Early postemergence; best before boot stage. **Remarks:** Sethoxydim is grass-selective and has no effect on broadleaf species. It also has no soil activity. Include crop oil concentrate surfactant. Sethoxydim has not been tested on mediterraneangrasses, but is expected to provide control.
AROMATIC AMINO ACID INHIBITORS	
Glyphosate *Roundup*, *Accord XRT II*, and others	**Rate:** Broadcast foliar treatment: 1 to 2 pt product (*Roundup ProMax*)/acre (0.56 to 1.1 lb a.e./acre). Spot treatment: 1% v/v solution. **Timing:** Postemergence in the beginning of the season when plants are growing rapidly. **Remarks:** Low volume applications are most effective. The small surface area of the plants makes good coverage difficult. Retreatment may be necessary. Glyphosate is a nonselective herbicide. Spot applications are most often recommended.
BRANCHED-CHAIN AMINO ACID INHIBITORS	
Imazapic *Plateau*	**Rate:** 4 to 12 oz product/acre (1 to 3 oz a.e./acre) **Timing:** Preemergence in fall or postemergence in early spring. In colder climates, spring applications after snow melt are better than fall treatments. **Remarks:** Imazapic has mixed selectivity and tends to favor members of the Asteraceae. It has some 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. It has not been tested on mediterraneangrasses, but is expected to provide control. Imazapic is not registered for use in California.
Sulfometuron *Oust* and others	**Rate:** 2 to 6.67 oz product/acre (1.5 to 5 oz a.i./acre) **Timing:** Preemergence or postemergence. Fall and spring applications can both be effective, but fall applications may give full season control. **Remarks:** Sulfometuron has mixed selectivity. It can cause minor damage to some native perennial grasses and has a fairly long soil residual. Higher rates may increase control but will also give more bare ground. Sulfometuron has not been tested on mediterraneangrasses, but is expected to provide control.

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.