Ventenata dubia (Leers) Coss. & Dur.

North African wiregrass

Family: Poaceae
Range: Many western states, particularly the northwestern states including Washington, Oregon, California, Idaho, Montana, Wyoming, and Utah.
Habitat: Bunchgrass, sagebrush, and meadow communities. Also found in Conservation Reserve Program lands, pastures and grass hayfields.
Origin: Native to Eurasia and North Africa.
Impacts: *Ventenata dubia* can outcompete perennial bunchgrasses but the mechanism for this ability is not clear. It is high in silica (2.7%)–making it poorly palatable to grazing animals–but not as high as medusahead (6.4%). Litter can build up on the soil surface, likely because of the higher silica content. Plants dry early in the season, similar to downy brome, and should pose similar risks with respect to fire.

North African wiregrass is a short-statured winter annual grass, 6 to 28 inches tall, with narrow leaves 1 to 2 mm wide. It is shallowly rooted, typically within the top 1 to 2 inches of soil. Ligules are membranous and 1 to 4 mm long.

The spikelets resemble a small wild oat. Spikelets usually have 3 florets with at least 1 floret with a twisted awn, 3/4 to 1 inch long that is attached to the lemma at 1/2 the lemma length. Seeds disperse primarily by falling to the ground soon after maturity. Seeds readily germinate in fall, approximately 2 weeks after downy brome emerges. Seed burial studies suggest longevity in the field of less than 2 years.

NON-CHEMICAL CONTROL

Mechanical (pulling, cutting, disking)	Hand pulling when the soil is moist can uproot this shallowly rooted species. Small infestations of a few square yards potentially could be pulled, but this is too labor intensive with large infestations.
Cultural	Grazing for weed control is unlikely to be effective given the low palatability of North African wiregrass. Using grazing to maintain competitive perennial grasses should indirectly provide some suppression. Prescribed burning in summer would be expected to provide some control of *Ventenata dubia*, provided it was conducted while the seeds remained on the plant. There is no direct evidence to support this, but results with similar species suggest that it would likely be effective.
Biological	There are no biological control efforts for the management of *Ventenata dubia*.

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.

AROMATIC AMINO ACID INHIBITORS	
Glyphosate *Roundup*, *Accord XRT II*, and others	**Rate:** 0.75 pt product (*Roundup ProMax*)/acre (0.42 lb a.e./acre) **Timing:** Postemergence. Fall application is the best timing to kill plants and prevent injury to many natives. Spring application will reduce seed production. **Remarks:** Glyphosate at this low rate can be effective in fall and prevent long-lasting injury to perennial bunchgrasses. Multiple years of treatment are necessary. The herbicide is nonselective and has no soil activity.

BRANCHED-CHAIN AMINO ACID INHIBITORS	
Imazapic *Plateau*	**Rate:** 5 to 6 oz product/acre (1.25 to 1.5 oz a.e./acre) **Timing:** Postemergence to seedlings in early spring or fall. **Remarks:** If warm-season perennial grasses are present, apply in fall when they are dormant and annual grasses have germinated. This timing will damage cool-season perennial grasses. If applied in pasture and desirable grasses are injured, a half rate of a balanced fertilizer applied the following spring may facilitate recovery. Imazapic has some soil residual activity. Imazapic is not registered for use in California.
Rimsulfuron *Matrix*	**Rate:** 4 oz product/acre (1 oz a.i./acre) **Timing:** Preemergence or postemergence in fall. **Remarks:** Rimsulfuron controls several annual grasses and broadleaves. Perennial grasses are tolerant to fall applications when established and grown under dryland conditions. Application to rapidly growing or irrigated perennial grasses may result in their injury or death. It provides soil residual control in cool climates but degrades rapidly under warm conditions. Rimsulfuron will not control summer annual weeds when applied in fall or spring. Add a surfactant when applying postemergence.
Sulfometuron *Oust* and others	**Rate:** 0.75 to 2.25 oz product/acre (0.56 to 1.7 oz a.i./acre) **Timing:** Either preemergence or postemergence in fall or early spring. **Remarks:** Sulfometuron is a broad-spectrum herbicide and will control many species. A combination of sulfometuron and chlorsulfuron (*Landmark XP*) at 0.75 oz product/acre has also been shown to be very effective.
Sulfosulfuron *Outrider*	**Rate:** 0.75 oz product/acre (0.56 oz a.i./acre) **Timing:** Either preemergence or postemergence in fall. **Remarks:** If meadow foxtail is present, it will be removed with this application. Planting of some wheatgrasses is possible in the following spring but other species should not be planted until the following fall or spring.
PHOTOSYNTHETIC INHIBITORS	
Hexazinone *Velpar L*	**Rate:** 2 to 6 qt product/acre (1 to 3 lb a.i./acre), check hexazinone formulation to make sure active ingredient rate is correct **Timing:** Preemergence in fall or very early spring. **Remarks:** There is no direct evidence that hexazinone will control *Ventenata dubia*, but it is generally effective against annual grasses and would be expected to be effective. High rates of hexazinone can create bare ground, so only use high rates in spot treatments.

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.