

## SOFT CHESS

*Bromus hordeaceus* L. ssp.  
*hordeaceus*

Plant Symbol = BRHOH

Contributed by: USDA NRCS California State Office  
and Lockeford Plant Materials Center, California



From Hitchcock (1950)  
@ plants.usda.gov

### Alternate Names

Soft brome, *Bromus mollis*

### Uses

**Livestock:** Soft chess is rated highly in California as an important forage plant. It ranks highest of the annual bromes in forage rating, producing excellent forage when young and is grazed heavily up to the time of reaching maturity. Seed does not shatter readily and the plants are grazed extensively during the summer with the livestock getting more nutrients than they would otherwise from the dry stalks and leaves alone.

**Erosion Control:** The ease with which it can be established and its outstanding reseeding ability contributes to its suitability for seeding natural or

man-made disturbed areas to protect them from soil erosion and producing sediment. These include bare un-vegetated slopes, such as brush burn areas, newly constructed roads, driveways, housing and industrial developments, gullies, drainages, ditch and channel banks, dikes, levees, dams, reservoirs, and other types of construction on sloping land.

**Wildlife Food and Cover:** During the winter and spring months when the leaves of soft chess are green and succulent, it is an important component in the diets of both deer and quail. Quail use a small amount of the seed after maturity. It also furnishes good nesting cover for quail in areas that are protected from grazing, which will occur normally if ranges are properly used.

**Soil Improvement:** It is especially adapted for reseeding use as an annual cover crop on orchard and vineyard land, because of its ability to withstand excessive mowing better than other grasses and maturing to seed under minimum watering.

### Status

Please consult the PLANTS Web site and your State Department of Natural Resources for this plant's current status (e.g. threatened or endangered species, state noxious status, and wetland indicator values).

### Weediness

This plant may become weedy or invasive in some regions or habitats and may displace desirable vegetation if not properly managed. Please consult with your local NRCS Field Office, Cooperative Extension Service office, or state natural resource or agriculture department regarding its status and use. Weed information is also available from the PLANTS website.

### Description

Grass Family (Poaceae). Soft chess is widely distributed on the annual rangeland in the southwestern United States. It is a winter growing, self-seeding, annual grass. It has strong seedling vigor, is suberect in growth habit, medium early in maturity, and has an outstanding reseeding ability. Its growth starts in the fall of the year and it matures in April and May.

### Distribution

Soft chess, a native of Europe, is widespread throughout much of western North America, Hawaii, South America and Asia. Soft chess may have

become widely established no later than the end of the 19<sup>th</sup> century. For current distribution, please consult the Plant Profile page for this species on the PLANTS Web site.

### **Adaptation**

Soft chess is adapted to the Mediterranean climatic zone from sea level to approximately 3,000' and in areas with an annual rainfall above 10 inches. It grows well on low fertility sites, but responds exceptionally well to applications of nitrogen-phosphorus fertilizers. It requires good drainage, is adapted on coarse to fine textures soils, and does best on neutral or slightly acid to mildly alkaline soils.

### **Establishment**

*Seedbed:* Areas to be seeded should have a firm seedbed, which has been previously roughened by disking, harrowing, raking, or otherwise worked to a depth of approximately 2 inches (5 cm).

*Seeding:* Seeding should be made in the fall of the year. The preferred method of seeding is with a drill. Good stands have been obtained from broadcast seeding, followed by a cultipacker, spiketooth harrow, or similar tool to cover the seed. Seed should be planted uniformly over the area and covered to a depth of ½ inch (1.25cm).

The seeding rate for pasture or range seeding is 4 pounds per acre drilled or 6 pounds per acre if broadcast planted. An annual legume like 'Lana' vetch (*Vicia villosa*) at the rate of 10 pounds per acre drilled is frequently planted with soft chess. For critical area planting, the seedling rate is 10 pounds per acre broadcast. When used in cover crop planting, soft chess is seeded at 5 pounds per acre broadcast.

### **Management**

*Livestock:* When using soft chess for forage production, do not graze until plants are 4 to 6 inches (10cm to 15cm) tall. On newly seeded stands, withhold grazing until a seed crop has matured. In subsequent years, at the end of the grazing season, adequate seed will have been produced if the pasture has a uniformly patchy appearance.

*Erosion Control:* On critical areas, the plants can be left to grow to maturity. The seed and its stalks and leaves from the one year's growth will provide plants and protection of the slopes for next year's stand. Soft chess responds very well to applications of nitrogen-phosphorus fertilizers, particularly on the low fertility sites of natural or man made disturbed areas.

*Soil Improvement:* When using soft chess for cover crops in orchards and vineyards, the area under the trees and vines can be kept clean by spraying a strip 2 to 6 feet (.61m to 1.83m) wide with an approved herbicide. This leaves a strip of cover between the tree or vine rows. During the growing season, the cover can be left to grow to seed set or it can be mowed as frequently as necessary.

Mowing height should be kept at 4 inches (10cm). Soft chess must not be mowed later than 3 to 4 weeks prior to seed maturity. This will allow the plant to set seed for next year's cover. Following seed set, the cover can be mowed as close as desirable or disked under. Regular cultural operations are then carried on throughout the year.

### **Cultivars, Improved, and Selected Materials (and area of origin)**

'Blando' Cultivar-Collected May 21, 1940, from winter annual rangeland near San Ramon, CA, by D.J. Vanderwal. Used for range reseeding, cover crop, revegetation of disturbed areas, and wildfire burn rehabilitation. Primary advantage over other strains is its consistent forage and seed production from year to year. During low rainfall years, its superiority was demonstrated by out-performing all other strains. In relation to the other strains tested, it is intermediate in maturity and sub-erect in growth habit. 'Blando' is a reliable, intermediate strain of soft chess that was selected for its consistent production of forage and seed, especially under adverse soil and variable climatic conditions.

### **Control**

Please contact your local agricultural extension specialist or county weed specialist to learn what works best in your area and how to use it safely. Always read label and safety instructions for each control method. Trade names and control measures appear in this document only to provide specific information. USDA, NRCS does not guarantee or warranty the products and control methods named, and other products may be equally effective.

### **References**

Alderson, J. and C. Sharp. 1994. Grass varieties in the United States. USDA NRCS, Washington DC.

USDA NRCS. 1981. *Management and uses of Blando brome: Bromus mollis L.* Davis, California.

USDI Geological Survey. 1969. *Bromus madritensis L.* (Poaceae) foxtail chess.. Accessed: 7 Sep. 2005.

<[www.usgs.nau.edu/SWEPIC/factsheets/Bromus\\_sp.p.pdf](http://www.usgs.nau.edu/SWEPIC/factsheets/Bromus_sp.p.pdf)>

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For more information about this and other plants, please contact your local NRCS field office or Conservation District, and visit the PLANTS Web site <<http://plants.usda.gov>> or the Plant Materials Program Web site <<http://Plant-Materials.nrcs.usda.gov>>

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