

KURA CLOVER

Trifolium ambiguum Bieb.

Plant Symbol = TRAM15

Contributed by: USDA NRCS Plant Materials Program



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Uses

Forage: Kura clover has the potential to be an important pasture legume. It is highly palatable, nutritious forage for all classes of livestock. Kura clover can be planted with orchardgrass, ryegrass, or tall fescue. Kura clover seldom grows tall enough to be harvested for hay or silage.

Wildlife: Kura clover is a choice food for deer and elk.

Erosion control: Grass stands benefit from the nitrogen produced by kura clover included in the seed mixture. Solid stands of kura clover form a good erosion controlling cover on droughty, sterile and moist, fertile soils.

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 Web site at plants.usda.gov.

Description

Trifolium ambiguum Bieb, kura clover, is a perennial legume that originated in southeastern Europe and western Asia and has only recently been used as a forage legume around the world. It has a prostrate, rhizomatous growth habit and attains a maximum height of one foot. The leaves are composed of three leaflets, which have a "crescent" or "water mark" on the upper surface. The leaves have prominent veins, sawtooth margins, and a smooth stalk.

The round flower heads, each consisting of 40 to 100 florets, are borne on stalks from the leaf axils. Florets are white to pink and have smooth stalks.

Adaptation and Distribution

Kura clover thrives best in a cool, moist climate in soils with ample lime, phosphate, and potash. In general, kura clover is best adapted to clay and silt soils in humid and irrigated areas. It grows well on droughty soils but does not tolerate poor drainage. Kura clover's dense rhizomatous root system penetrates the soil to a depth of two feet.

Kura clover is adapted throughout the northeastern and north central United States.

Establishment

The standard seeding rate is ten to twelve pounds per acre for pure stands and six pounds per acre for stands established with grasses. There are 215,000 seeds per pound and 60 pounds of seed per bushel.

Kura clover may be established into a prepared seedbed or seeded into established stands of grass. Due to poor seedling vigor, seedings into prepared seedbeds usually establish more reliably. In prepared seedbeds, seeds should be sown with a drop spreader or drill with a cultipacker into a seedbed that has been plowed, harrowed, and compacted to produce a firm seedbed. Seedlings established in grass stands

should be sown with a no-till drill into stands that have been suppressed with a contact herbicide such as glyphosate (Roundup).

The recommended seeding depth is ¼ inch. The seeds must be inoculated before seeding with Trifolium Spec 3 inoculant to insure that they will fix nitrogen. Kura clover is slow to germinate and does not establish a solid stand in the first year. Broadcast seedings are not recommended.

The proper time of seeding is determined by seasonal and moisture conditions. Optimum spring seeding time is from April to May. Late summer and fall seedings can be successful, but should be conducted while adequate moisture is still in the soil to assure establishment before freezing.

Management

Kura clover can be managed as pure stands or mixed stands with grasses. In pure stands of kura clover, grasses must be controlled at the proper time with herbicides labeled for the specific grass to be controlled at the specific stage of growth. Close grazing (2-inch stubble height) favors clover.

In mixed stands, management is aimed at maintaining 40% to 50% clover. Close grazing (2-inch stubble height) favors clover, whereas light grazing favors grass. Well-fertilized grass will outgrow clover in fall and winter and could smother the clover.

Spring applications of nitrogen will stimulate grass in mixed stands and provide early feed, but excessive rates are detrimental to the clover stand. Phosphate applications are broadcast in fall or spring according to soil tests. Sulfur, boron, or magnesium may be needed for maximum production on some soils.

Kura clover may be grazed to a stubble height of two inches with rest intervals between three and five weeks. Yields vary from 2.5 to 4.5 tons per acre. Cattle gain an average of two pounds of weight per day when grazing kura clover.

Pests and Potential Problems

Kura clover has no known serious insect or disease pests. Deer and other browsing wildlife species will utilize the forage.

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

'Rhizo' is a cultivar released by the Quicksand, Kentucky Plant Materials Center in 1989 for use in the Appalachian Region. 'Rhizo' was the first cultivar released in the United States. It was selected

from a collection of 18 accessions of kura clover assembled from Europe and Asia. Foundation seed is available from the Alderson, West Virginia Plant Materials Center.

Other cultivars that are commercially available and have demonstrated quicker establishment and more forage yield in the north-central states include 'Endura' and 'Cossack'.

Kura clover is a new crop and seeds are only available at a few commercial seed dealers.

Weed Control

Since kura clover germinates and develops stands slowly, weed control is critical for establishment success. Thorough tillage before seeding is absolutely necessary. Preplant incorporated herbicides such as balan and treflan have been used successfully to control germinating weed seeds. Grass herbicides such as poast, fusillade, and basagran have been used successfully to control grasses in pure kura clover stands.

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.

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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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