

'Tioga' deertongue can be hydroseeded on steep, rough areas not accessible to equipment and where no site preparation can be carried out.

Two tons of agricultural limestone and 300 to 400 pounds of 10-10-10 fertilizer per acre are suggested for deertongue plantings on critical areas in lieu of soil test. Where conditions permit, these materials should be worked into the soil surface during site preparation. After a good cover has become established, plant vigor will be maintained without additional fertilizer treatments.

Mulching is beneficial for seedling establishment and erosion control. Two tons of straw or hay tacked down is the most desirable method. Where this is not possible, wood fiber mulch should be used at 1,500 pounds per acre. Mulching is essential on all areas where no seedbed preparation is performed and on all broadcast seedings.

'Tioga' deertongue should be seeded at a rate of 12 to 15 pounds per acre. In mixtures with birdsfoot trefoil at six pounds per acre, use ten pounds of deertongue per acre. In warm season grass mixes, only two to three pounds of deertongue is required.

Early growth of 'Tioga' deertongue seedlings is relatively slow. Therefore, it may be desirable to seed small quantities of redtop seed.

When a thin stand of deertongue is established on disturbed sites, it will gradually increase in density by re-seeding and by existing plants becoming larger.

Seed Production

'Tioga' deertongue seed can be produced on most well drained, tillable soils. If possible, locate a field which has been in cultivation for a few years prior to its use for deertongue.

Weed control in seed production fields is important. The best control the first year is to mow the weeds when they overtop the deertongue.

Seeding should be done in the early spring while the soil is still cool. Seed with a conventional grain drill or cultipacker seed at 12-15 pounds per acre. 'Tioga' may be harvested by direct combining or may be combined from a windrow. Seed should be dried to prevent heating which will damage the seed crop. Seed is easily cleaned using standard seed cleaning procedures.

Availability

For sources of supply for 'Tioga' or for more information on the availability, planting and use of 'Tioga,' contact your local NRCS office or Soil and Water Conservation District office.

For More Information

Visit our Plant Materials Internet site at <http://Plant-Materials.nrcs.usda.gov> to find more information on solving conservation problems using plants.

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'Tioga' deertongue



An improved conservation plant developed by the Big Flats Plant Materials Center, Corning, NY

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'Tioga' deertongue

The major use for 'Tioga' deertongue (*Dichanthelium clandestinum*) is for revegetating disturbed areas where site conditions limit the use of other species. It is tolerant of sites with a pH as low as 3.8, aluminum concentrations which limit growth of other species, light textured soil which is droughty, and infertile and seasonally wet soils.

A common conservation use of deertongue is for revegetating acid coal and other surface mine spoil and sandy infertile disturbed areas such as highway slopes and gravel pits. It can be planted successfully with other warm season grasses.

'Tioga' was cooperatively released by the USDA Natural Resources Conservation Service, the Pennsylvania Agricultural Experiment Station, and Cornell University Agricultural Experiment Station.

Deertongue has considerable merit for food and cover for wildlife. Turkeys, for example, eat the seeds readily and young poults have been observed to eat the new growth in June and July. The seed is eaten by all gamebirds and over 15 songbirds common to the Northeast. Deer eat the seed and may graze on the new fall rosette growth. 'Tioga' is not recommended as a livestock forage due to the low nutrient content.



Description

'Tioga' deertongue is a perennial, cool season grass native to the eastern United States and southeastern Canada. The mid-summer growth normally reaches one to three feet in height. Leaves are 1/2 to 1/4 inches wide and four to eight inches long. 'Tioga' produces short, strong rhizomes. Two seed crops are produced annually - an early crop on an open terminal panicle and a later crop on a panicle enclosed in the swollen leaf sheath. Most of the early crop is sterile and shatters easily. The second crop, produced in the enclosed panicle, produces an abundance of seed.



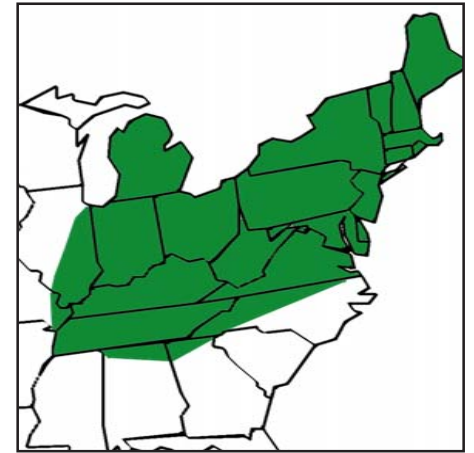
Adaptation

The natural distribution of deertongue is Nova Scotia, Quebec, and Maine to Kansas, south to northern Florida and Texas.

It has a wide natural adaptation to soil moisture conditions and is found growing on droughty sites as well as on moist soils and on streambanks. It is a pioneer on low fertility, disturbed sites. It occurs naturally on sites with a pH of 4.0. Under these conditions, it is reduced in stature and vigor but persists and spreads.

'Tioga' deertongue lodges over winter and forms a mat of vegetative cover. This is an important factor in the natural spread of deertongue in areas without vegetation. The old stems and leaf parts form a natural mulch that aids in seedling establishment.

Area of Adaptation for 'Tioga'



Establishment

Deertongue should be seeded as early as possible in the spring. The seed dormancy is easily overcome when deertongue is planted when the weather is cool. If the site conditions are such that planting cannot be done in the early spring, it is advisable to make a dormant seeding in the late fall or early winter.

On sites where conventional farm equipment can operate, prepare a normal seedbed as for a pasture planting. Seed with a grain or grass drill. If seed is to be drilled or band-seeded, do not place seed deeper than one inch. Native grass range drills are very successful with seeding native grass seed mixtures.

On rough, rocky sites not suitable for tillage by conventional farm equipment, but accessible to power equipment, some method of scarifying the surface should be used. Operations should be carried out on the contour or across the slope. On these sites, it is generally necessary to broadcast the seed then track it in with a bulldozer.