'TIOGA'

Deertongue

Erosion Control

Strip Mine Seeding

Bird and Wildlife Food

SOIL CONSERVATION SERVICE
U.S. DEPARTMENT OF AGRICULTURE
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Use

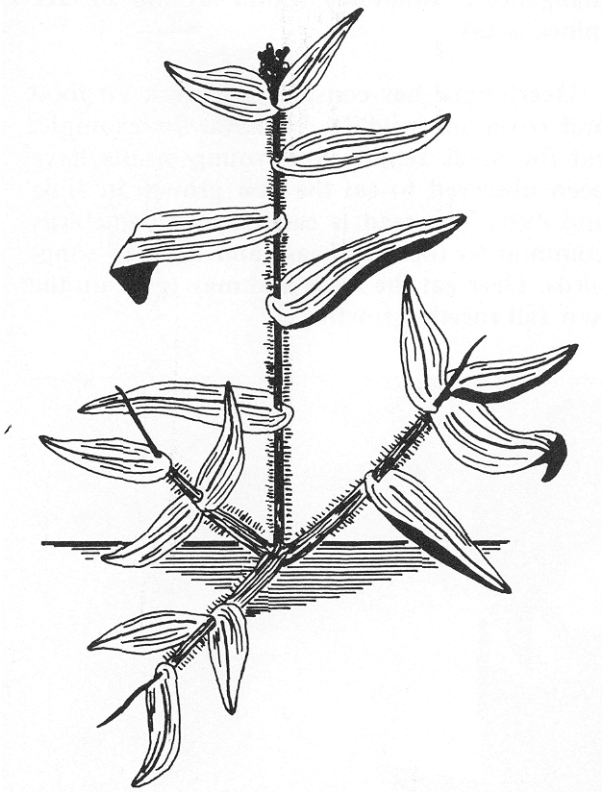
The major use of deertongue is for revegetating disturbed areas where site conditions limit the use of other species. It is tolerant of sites with (1) a pH as low as 3.8, (2) aluminum concentration which limits growth of other species, and (3) light textured soil which is droughty and infertile.

The principal 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.

Tioga has been successfully field tested on acid mine spoil with pH values of **3.5** or lower and normally toxic levels of aluminum and manganese, commonly found around surface mined areas.

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 common to the Northeast and over 15 songbirds. Deer eat the seeds and may graze on the new fall rosette growth.

Description



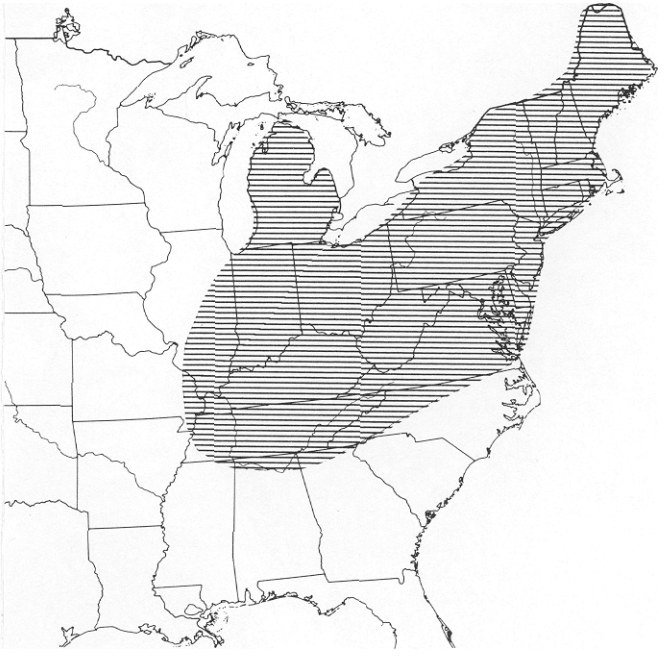
Deertongue (*Panicum* clandestinum L.) is a perennial, warm season grass native to Eastern United States and Southeastern Canada. The mid-summer growth normally reaches a height of one to three feet. Leaves are one-half to one and one-quarter inches wide and four to eight inches long. Deertongue produces 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.

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 of Tioga deertongue

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 he drilled or band-seeded, do not place seed deeper than one inch.

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 seed.

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.

Deertongne should be seeded at a rate of **12-15** pounds per acre. In mixtures with birdsfoot at **six** pounds per acre, use ten pounds of deertongne per acre.

Early growth of deertongue seedlings is relatively slow. Therefore, it may be desirable **to** seed small quantities of a rapid-growing, short-lived grass, such as tall fescue or perennial ryegrass with it. A maximum of **10-15** pounds of either should be used.

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

Seed [illegible] ti[illegible]

Deertongue seed a[illegible] be [illegible] **on most** well [illegible] **i** [illegible] **k** soils. If [illegible], **locate** a [illegible] **has** been in cultivation **f** a[illegible] **ears** [illegible] 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 seeder at **12-15** pounds per acre.

Deertongue 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.

Additional information is available on the use and production of Tioga deertongue from any soil conservation district or Soil Conservation Service office serving your area. Assistance is available without regard to race, creed, color, sex, or national origin.