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PRODUCING AND MANAGING AESCHYNOMENE

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Aeschynomene is an upright summer annual legume which grows rapidly on moist flatwood soils. This legume can be grown on cultivated soil or in association with a perennial grass. Once established, aeschynomene will develop rapidly, producing high quality forage over a 60 to 90 day period, readily accepted by cattle.

Establishment and maintenance

The establishment of aeschynomene from seed is relatively easy. However, seeding rate will depend on hulled or unhulled seed. Hulled seed has a germination of 80-90 percent and can be seeded at 5 pounds per acre. The germination of unhulled seed ranges from five to 10 percent and should be seeded at 25-30 pounds per acre.

If aeschynomene is seeded when continuous supply of soil moisture is guaranteed, hulled seed can be used with uniform seedling emergence. However, if the supply of moisture diminishes immediately after seedling emergence, most seedlings may die. Seeding unhulled aeschynomene in moist soil, results in five to 10 percent of seed germinating immediately. If moisture diminishes, plants die, but a new supply of seedlings will develop from hard seed when additional moisture is available.

Establishing aeschynomene in a perennial grass sod requires the grass to be grazed two inches from soil surface, scarification of sod by a chopper or light disk, seeding, followed again by light disking and firm rolling to save moisture. Establishing aeschynomene in a cultivated soil is accomplished by seeding on clean land, light disking and rolling.

Aeschynomene can be established on a cultivated soil following winter annual forages (ryegrass, small grains, etc.) in a pasture renovation program.

Aeschynomene basically has a low to medium fertility requirement. An annual application of 0-30-60 pounds per acre N-P2O5-K2O plus five to six pounds per acre of a complete micronutrient mix is generally sufficient. Plants perform well at a pH of 5.0 to 6.5. Seeding aeschynomene on land for the first time requires seed to be inoculated with either "cowpea" or special aeschynomene rhizobium.

Production and quality

Following the germination of aeschynomene, plants require five to six weeks to attain initial six inch height, followed by an additional six inches of growth (0.25 times per acre) weekly, until about October 10.

Vast differences in CP and IVOMD develop as aeschynomene plants elongate from six to 60 inches. A plant 24 inches tall could range from 80 and 27 percent in IVOMD and CP at the top to 38 and seven percent at the bottom six inches, respectively. If plants are allowed to grow beyond 24 inches tall, the top 18 inches is good quality forage averaging 65 percent IVOMD and 17 percent CP and the bottom portion of the plant is low quality averaging 35 percent IVOMD and 4.5 percent CP, respectively.

Management

When aeschynomene is seeded directly into a perennial grass sod close grazing (two to three inches) should continue until the legume seedlings are one to two inches tall or until seedlings are grazed by cattle. All livestock should then be removed from the pasture and allow aeschynomene plants to attain 18 to 20 inches. At this stage, plants can be grazed continuously or rotationally back to a six to eight inch stubble. Maintaining a six to eight inch stubble allows plants to reseed without cattle removal. For additional information, call the AREC, Ona 941-735- 1314.