Culture and uses of TALL WHEATGRASS

In the State of Washington

wheatgrass, 'Alkar' tall

'Alkar' tall wheatgrass, *Agropyron elongatum* (Host) Beauv., is a coarse, tall, vigorous, late-maturing, perennial bunchgrass. Seedheads are large, long, and erect. The leaves are long, strongly ribbed, harsh, and blue-green in color, On strong alkali or under droughty conditions the blue color is intensified. Plant growth starts early in the spring and continues into late summer if moisture is adequate. Seed matures in September. Seeds are the largest of the wheatgrasses with 79,000 per pound.

Adavtation

Tall wheatgrass has the highest tolerance of any cultivated grass to soils that are saline, ealine-alkali, or non-saline alkali. It is well adapted wherever basin wildrye is a component of the native vegetation and on deep chestnut soils. It is adapted to irrigated and subirrigated soils and on imperfectly drained soils, but it will not stand poorly drained soils. It stays green 30 days longer than crested wheatgrass. Under irrigation or subirrigation it produces more than 7 tons per acre. The variety 'Alkar' is recommended for use in the Pacific Northwest,

Uses

Tall wheatgrass is often used for reclaiming saline-alkali lands. It is used for pasture, hay, silage, and standing hay for winter feed. It is used mostly for beef cattle but has also been grazed by dairy cattle, horses, and sheep. When used €or pasture, best utilization is obtained from pure stands. Animals thrive on tall wheatgrass although its palatability is only fair and more succulent plants are preferred.

State-game departments have used it for upland gamebird cover. It has been euccessfully used in soil bank wildlife plantings to provide cover in alternate drill widths with lower growing grasses. Gophers do not like the coarse roots of tall wheatgrass. The large seeds which hang on fairly well during the winter provide emergency food for upland game birds when the 'ground is covered with deep snow for prolonged periods,

Establishment

On saline soils saltgrass should be eliminated, good drainage provided, and the salts leached or flushed off the surface where irrigation water is available. Stands are best established in good seedbeds with a deep furrow drill in the early spring. Seedlings establish slowly and light irrigation at 2-3 day intervals in the furrows is required until the seedlings are 4"-6" tall. With surface irrigation salts accumulate on the ridges and allows the seed in the bottom of the furrow to become established. Continuous moisture reduces the salts concentration. On good dry-area soils, seedings may be made in the fall or spring. Eight pounds of seed per acre are required. In 12-inch spaced rows there should be 14-16 seeds per foot of drill row.

Management

Seedlings become established slowly and require one full season of protection before grazing use, two seasons on dry sites. Allow the crop to set seed one or two years on problemsites where only poor to fair stands are obtained. Limited fall grazing can trample the seeds into the ground.

Mow the plants to a 6-inch stubble before grazing. This prevents plants from being grazed too closely. Spring grazing can start when plants reach a 10-inch height above the 6-inch stubble and the ground is firm, Under light utilization clip the plants back to a 6-inch stubble when they begin to head. Fence fields of tall wheatgrass separate from other pastures and utilize it in pure stands.

When used for upland gamebird cover, increased height can be obtained from plants if seeded in wide-spaced rows and cultivated the first year. Small areas in range or livestock pastures need no protection after establishment. Tall wheatgrass is only lightly used by cattle, horses, or big game animals as long as other forage is available. It continues to provide good cover when the surrounding area is heavily grazed. The addition of 40 to 80 pounds of nitrogen per acre annually as the need is indicated by soil tests will increase production and cover.

References

Hafenrichter, A. L., J. L. Schwendiman, et al, 1968. Grasses and legumes for soil conservation in the Pacific Northwest and Great Basin states. U. S. Dept. Agr. Handbook No. 339.