The Soil Conservation Service operates and maintains one of its 23 plant materials centers at Aberdeen, Idaho. Special emphasis is placed on finding suitable plants for erosion control on soils and sites where it is difficult to establish protective vegetative cover.

Plant materials are a significant component of about two-thirds of the conservation practices farmers, ranchers, and others find essential to the solution of erosion and sedimentation problems. It is SCS policy to assemble, evaluate, release and distribute for commercial increase, new and improved plant materials needed for resource conservation and development.

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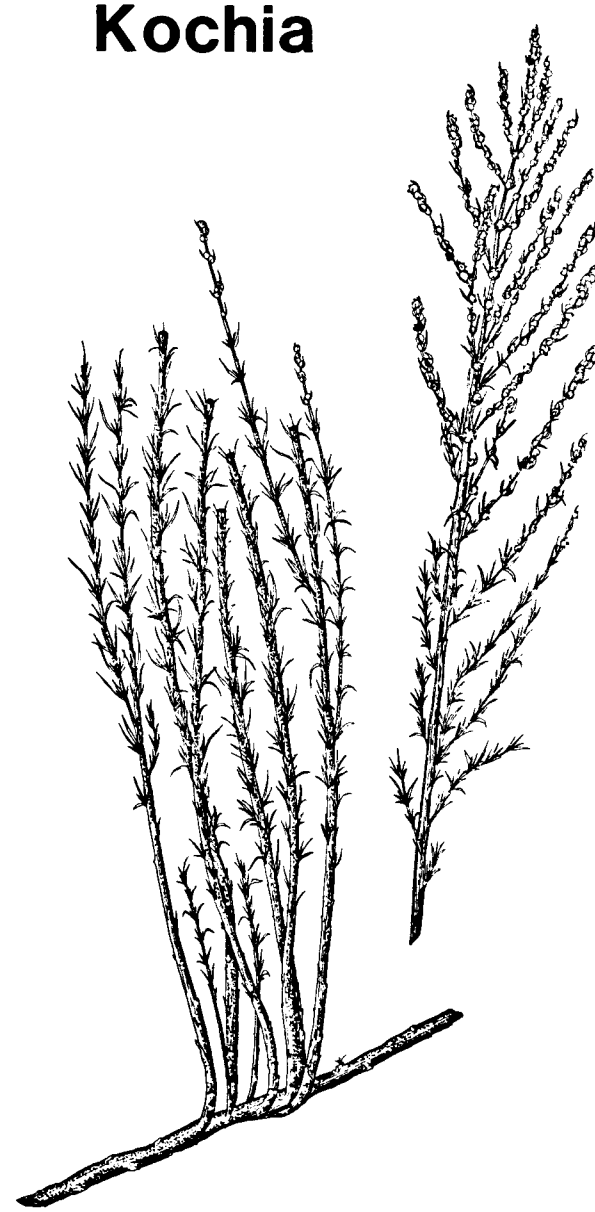
Immigrant Forage Kochia



Immigrant Forage Kochia

Immigrant was developed as a forage and erosion control plant for the greasewood-shadscale, sagebrush-grass and pinyon-juniper rangelands of the Intermountain West. It is a perennial semi-evergreen subshrub. Forage kochia produces succulent branched stems annually that are gray-green to green in color. Oxalate levels are lower than winterfat and fourwing saltbrush.

Immigrant has been the superior performing accession in experimental seeding trials, rangeland seedings and on disturbed areas in Utah, Idaho, Nevada, Oregon, Arizona, New Mexico and Wyoming. It has demonstrated superiority in longevity, forage production, forage quality, palatability and competitiveness with annuals. It developes a fibrous root system with large deep tap root.

Uses

Immigrant has good potential as year-round range forage, for erosion control and critical area treatment. It has the ability to establish and persist on disturbed harsh soils, to spread from seed, and to increase fall and winter forage quality of perennial grass stands. It provides good palatability for livestock and big game, food and cover for upland game birds, compatibility with other perennials, and competitiveness toward annuals.

Adaptability

Immigrant has done well in basic soils but has performed poorly on neutral or acidic soils. It does well on different textured soils ranging from sandy loam to heavy clay. It has done well with 5 to 27 inches average annual precipitation but appears best adapted to 8 to 14 inches. Immigrant is adapted to temperature extremes of -25° to 104° F. No disease or serious insect problems have been observed.

Seeding Recommendations

A firm, clean, weed-free seedbed is recommended. Range and erosion control seedings should be made in the late fall or very early spring. Seed one to three pounds pure live seed per acre in a mixture of grass, legume and forb seeds. Seeding may be made by broadcasting on top of disturbed or undisturbed soil or drilled at very shallow depths.

For seed production, a seeding rate of one pound pure live seed per acre in rows 30-40 inches apart is recommended. Seed should not be placed over 1/16 inch deep. When transplants are used, one every 12 to 14 inches of row length is recommended. Seed production can be reduced by competition so a weed control program is needed. There are approximately 395,000 seeds per pound when in the bracts. Seed weighs 13.6 pounds per bushel.

Management

Once established, Immigrant forage kochia will maintain itself by seed. It will benefit from good range management the same as grasses and other range plants.

Seed Availability

Breeders and foundation seed will be maintained by the Plant Materials Center at Aberdeen, Idaho. Foundation seed may be obtained through Soil Conservation Districts, University Experiment Stations and Crop Improvement Associations.