TECHNICAL NOTES

CAUCASIAN BLESTEM IN KANSAS

Experiences of farmers and ranchers point to a little known grass which promises to help fill a need for more warm season, or summer, grasses where seeding is necessary in the southwestern part of the Northern Great Plains. This is an area too far north for satisfactory results with many of the recently introduced high-producing warm season grasses now being used in Oklahoma and Texas.

Jack R. Harlan, Oklahoma Agricultural Experiment Station, Stillwater, Oklahoma, in February 1952, published a leaflet on Caucasian bluestem, giving origin, description, soil preference, palatability and management.

Caucasian bluestem (Andropogon intermedium var. caucasicus) appears to be an exception. It is a perennial mid grass similar to the better known King Ranch and Turkestan bluestems, but begins growth earlier in the year and has been winter hardy in this area. It survived temperatures of 15 to 18 degrees below zero at Woodward, Oklahoma, and Ashland, Kansas, during the 1950-51 winter while King Ranch bluestem killed out almost entirely. In the Ashland vicinity it has also shown more resistance to disease.

Farm and ranch observations have shown that Caucasian bluestem, while not preferred by cattle where they have a choice, yields large quantities of forage that produces good livestock gains. It is also thoroughly effective in making an adequate ground cover for conserving water and controlling erosion.

Bill R. Anderson near Ashland, Kansas, relied solely on Caucasian bluestem to feed some cattle. He turned 4 Angus heifers, averaging 600 pounds, into his 2-year-old 7-acre field of Caucasian bluestem in the fall of 1950 and wintered them there. Five more heifers of about the same weight were put in the field April 15, 1951.

The nine heifers averaged 800 pounds when they were taken off the Caucasian bluestem August 15. The weight gain was over 250 pounds an acre. After their removal, Anderson said, he harvested 50 pounds of seed and 1 1/2 tons of hay an acre from the field (Fig. 1). Three of the heifers were shown at the Clark County Fair late in August. They won a female grand championship, a first prize, and a second prize. The entire ration for both the prize winners and the others was Caucasian bluestem.

Several small plots in the Land Utilization Project near Elkhart, Kansas, were seeded by the Soil Conservation Service to pure stands of native and introduced grasses, including Caucasian bluestem.
The plots are scattered throughout sizeable areas that were seeded about the same time to a mixture of native grasses. Where the cattle had sufficient native grass in these seeded areas, there was little evidence of either Caucasian or Turkestan bluestem being eaten. The Kansas State College Branch experiment station at Garden City, Kansas, reports that its dairy cattle showed a slight preference for Blackwell switchgrass over Caucasian bluestem on irrigated pasture.

A number of cooperators with the Clark County Soil Conservation District have found Caucasian bluestem to be an early seed producer. G. C. Leslie near Ashland harvested 152 pounds of seed an acre from this grass the same year it was planted. Harry Thompson near Minneola, harvested 200 pounds an acre from Caucasian bluestem.

Charles B. Davis near Ashland planted 132 acres of Caucasian bluestem for seed production and grazing purposes in the spring of 1951. In December, 100 cows with calves were turned in the field. The cows were fed 1½ bundles of corn fodder and 3 pounds of 32 percent protein a day. The livestock spent most of the afternoons on the Caucasian bluestem after the bundle feed and cake were eaten. The grass plainly provided good winter roughage for grazing. The cows were moved to native grass in the spring of 1952 and two head of short yearlings per acre, averaging about 450 pounds, were grazed on the 132 acres of Caucasian bluestem until August 1.

Caucasian bluestem was brought to the United States from Tiflis, between the Caspian Sea and Black Sea in southern Russia, in 1929. It has not been promoted heavily, probably because of its indeterminate seeding habit. It may be distinguished from Turkestan and King Ranch bluestem by its seed head. The branches of the heads of Caucasian bluestem are shorter than the central axis, whereas on the others the branches

![Figure 2](image-url)
are longer than the axis. Caucasian blue-stem heads are usually reddish, while the heads of the other two are purplish. Caucasian blue-stem is the lightest green of the three. Nodes of Caucasian and Turkestan blue-stem are smooth; those on King Ranch blue-stem have fine hairs around them.

This grass has made good growth at several experiment stations, but farm plantings have been relatively few and no experiment station grazing studies have been made. Two are being set up—at the Southern Great Plains Field Station at Woodward, Oklahoma, and Fort Hayes, Kansas, State College farm. Dr. A. E. Aldous formerly at Kansas State College, Manhattan, is said to have been the first to seed Caucasian blue-stem in Kansas. The Soil Conservation Service, seeking suitable grasses for revegetating badly eroded land and for crop rotation to add organic matter to the soil, got its first seed from him in 1934. Since then, they have helped a number of farmers establish stands for soil and water conservation.

Caucasian blue-stem is superior in southwest Kansas to either Turkestan or King Ranch blue-stems. Seedings for seed production are on the increase and it is anticipated that there soon will be a wider knowledge of the grass. It will bear watching.

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