

Kansas State Agricultural College.

EXPERIMENT STATION.—Circular No. 6.

DEPARTMENT OF AGRONOMY.

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VARIETY TESTS.

BY

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THE Experiment Station has for years carried on a systematic study of varieties best adapted to eastern Kansas. Many inquiries are received for information concerning standard varieties, and this circular is issued to give as briefly as possible a statement gathered from our experiences with these varieties covering a period of from five to seven years. Many hundreds of varieties have been tested but those given in this circular are considered as best adapted to eastern and middle Kansas conditions.

DESCRIPTION AND ADAPTATION OF VARIETIES.

CORN.

More than 200 different varieties or strains of corn have been tested in comparative trial plots on the Experiment Station farm at Manhattan. The varieties named below have been grown from two to seven years and are among the better producers.

White Dent Varieties.

Boone County White.—Introduced from other states but grown and bred in Kansas, medium early, 115 days to mature, medium large ears; adapted for growing on bottom land and on good upland in eastern or central Kansas. This variety wins more prizes at the corn shows than any other variety of white corn.

Johnson County White.—From Johnson county, Indiana;

same as Boone County White in breeding and type, both varieties coming from the same original seed; adapted for growing in eastern Kansas on good corn land.

Commercial White Dent.—Introduced from Missouri, similar to Boone County White but smoother in type, one of the best producers in Missouri. It has out-yielded Boone County on upland in a trial of two seasons at this Station; recommended for eastern Kansas and may be a better poor land corn than Boone County.

Nebraska White Prize.—“Native” Nebraska corn, similar in type to Boone County, with somewhat smaller ears and a little earlier in maturing; recommended for northern Kansas.

Roseland White.—“Native” Kansas corn, medium late, 125 days, large ears, fairly large deep kernels; adapted to good corn land in east-central and southeastern Kansas.

McAuley White Dent.—“Native” Kansas corn, medium in maturing, 120 days, similar to Boone County but with smoother, larger kernels. A hardy variety adapted to upland and bottom land in eastern and middle Kansas.

Hammett.—“Native” Kansas corn, a little earlier than the Boone County, with shorter ears, hardy and adapted to upland in northern Kansas.

Silvermine.—A standard variety throughout the corn belt, a little earlier than Boone County, with somewhat smaller ears but usually deeper grains; a good early corn in eastern Kansas but less productive than Boone County at this Station. This variety may be grown successfully further west by adaptation.

Sandford's White Dent.—“Native” Kansas corn, similar to Silvermine but a better yielder, hardy and adapted for growing on upland or bottom land in central and northern Kansas.

Pride of Saline.—“Native” western Kansas corn, a cross-bred variety resembling a smooth type of Silvermine but with shallower grains, has about the same maturing season as Boone County but hardier and more drought resistant. Has proved to be one of the best producing varieties at this Station during the last three, drier years. Recommended only for well watered bottom land in western and west-central Kansas and for upland further east.

White Pearl.—Medium early corn of smooth Silvermine type. Has produced well on upland during the past three seasons.

Yellow Dent Varieties.

Kansas Sunflower.—“Native” Kansas corn, medium late, 120 to 125 days, rather small ears with good type of grain of rich golden color and strong vitality; not a show corn but excellent for feeding, hardy and well adapted for growing on upland or bottom land in eastern and central Kansas. This variety is the highest producer at the Kansas Experiment Station in a seven years’ trial.

Hildreth.—“Native” Kansas corn, late in maturing, 130 to 135 days, a very rank grower, with large ears and deep grain; best adapted for the east-central and southeastern portions of the state. Excellent show type and a prize winner and one of the heaviest producers on good corn land.

Reid’s Yellow Dent.—A standard variety very generally grown throughout the corn belt, medium early, 110 to 115 days, medium sized ears with deep grain. A good medium early corn and a great prize winner but does not yield quite so well at this Station as other later maturing sorts; best adapted to eastern, northern and central Kansas.

Leaming.—A medium early corn with rather larger ears and coarser grain than Reid’s Yellow Dent and a heavier producer, having about the same general adaptation.

Legal Tender.—Somewhat similar in type to Leaming, more cylindrical ears and a little later in maturing.

Hogue’s Yellow Dent.—Introduced from Nebraska, medium early, 110 days, similar to Reid’s Yellow Dent in type of ear and kernel but a little lighter in color, an excellent producer, outyielding the Reid at this Station; may be best adapted for central, northern and northwestern Kansas.

Hiawatha Yellow Dent.—“Native” Kansas corn, medium late, 125 days, a large-eared variety of the Leaming type. Adapted for growing in northern and eastern Kansas on fertile land; may give good results in the southern part of the state on good corn land, though for late corn the Hildreth may be preferred in southern Kansas.

OATS.

The varieties tested for seven years at the Kansas Experiment Station have been somewhat improved by grading and selection. Total number of varieties tested, 44. Prefer to sow oats early in the spring, two to three bushels of seed per acre.

Description and Adaptation of Varieties.

Improved Red Texas.—Highest yielder at this Station, generally adapted for growing in Kansas, preferred in the central, south-central and southeastern portions of the state.

Sixty-day.—Ranks second in yield for seven years' trial, a hardy variety and good drought resister; recommended for western and northern Kansas.

Kherson.—Ranks third in yield for seven years, reported as the best producing variety in Nebraska and Iowa, well adapted for northern and northeastern Kansas.

Burt.—One of the earliest maturing varieties, very hardy and a drought resister, recommended for western Kansas.

BARLEY.

Varieties tested five and seven years; total number tested, 32 varieties. Sow early in the spring two to two and one-half bushels per acre.

Improved Mansury.—Six-rowed bearded type, medium early, best producing variety in seven years' trial, generally adapted for growing, preferred for eastern and middle Kansas.

Improved Bonanza.—Similar to Mansury in type and yielding qualities and adaptation for growing.

Six-rowed Ellis.—Bearded type, good yielder, seed from Fort Hays Station, adapted for growing in western Kansas.

Stavropol.—Six-rowed bearded type, one of the earliest maturing varieties and a good producer, recommended for western and south-central Kansas.

Success Beardless.—Six-rowed barley without beards, has a general adaptation for growing, not so hardy and a little less productive than the best bearded varieties.

SPRING EMMER.

Emmer should be sown very early in the spring, about three bushels of seed per acre. This grain may take the place of barley or oats and may be somewhat more hardy and drought resistant but matures later, hence is likely to be injured by hot weather.

CANE.

The following varieties have been grown for several years at the Kansas Experiment Station and have been improved by the head-row method of breeding. The seed is practically pure and entirely free from smut.

Black Dwarf.—One of the earliest maturing varieties of the

Dwarf Amber type, especially recommended as a fodder cane and generally adapted for growing.

Early Amber.—A standard sort generally adapted for growing as a fodder cane, and also used to some extent for syrup production.

Kansas Orange.—A medium late maturing standard variety in Kansas, better adapted for growing in the central and southern portions of the state; a good syrup produce, also generally planted for fodder.

Texas Honey.—A late maturing, large, rank-growing variety; said to be a good producer of syrup.

Red Sorghum, U. S. No. 3.—Red Amber type, rather late in maturing, a good producer of forage and seed, adaptation not fully determined.

Sumac.—A small-seeded somewhat dwarf type; a hardy variety, and good foddercane.

KAFIR CORN.

The College-bred seed has been improved by head-row breeding and is practically pure in type and entirely free from smut.

Black Hulled White.—A standard variety all over the state and preferred to the Red Kafir in southern and western Kansas.

Red Kafir.—A somewhat earlier maturing variety in eastern Kansas, producing more slender stalks with more leaves, and may be preferred for forage but does not usually produce quite so large yields of seed as the Black Hulled White.

BROOM CORN.

The Department has improved a variety of Dwarf broom corn by several years' breeding to secure straight brush and eliminate the center stem. There are two general types of broom corn, the Dwarf and the Standard. The Dwarf may be recommended for growing in the drier portions of the state—the Standard in the more humid portions.

MILO MAIZE.

The Dwarf milo maize may be recommended for growing in middle and western Kansas. The Department has for several years been breeding by the head-row method a variety of the Dwarf milo maize which is now quite generally distributed.

COWPEAS.

Cowpeas are generally adapted for growing throughout the state. The earlier maturing varieties are to be preferred in the northern and western part of the state, such as New Era,

Groit, Gray Goose and Black Eye. For central and southern Kansas the above-named varieties may also be recommended, and also the Whippoorwill, a later maturing, ranker growing sort and a standard variety generally sold by seedsmen, as is also the New Era, these two varieties being preferred for general culture.

SOY BEANS.

The Early Yellow is the standard variety now grown in this state. This is an early maturing sort and may be especially recommended for the northern part of the state, while later maturing varieties such as Morse, Ebony and Meyer may give better results in southern Kansas. Soy beans are a less profitable crop and not so well adapted for growing in this state as cowpeas.

MILLET.

German millet is the standard variety of the fox-tail type, which is generally adapted for growing throughout the eastern and central portions of the state. Hungarian and Siberian are also grown, but are not quite so heavy producers as the German. For western Kansas prefer the Proso or broom-corn type of millet, such as the common "Hog" millet, Black Voronezh and Red Russian.

Approved:

ED. H. WEBSTER, *Director*.

MANHATTAN, KAN., February 14, 1910.