

**Kafir Culture in
Wabaunsee County, Kansas,
1920-1939**

By Joyce Thierer

Kafir was commonly called "kafir corn" by the farmers of Wabaunsee County, Kansas. Farmers up and down the Mill Creek valley of Wabaunsee County grew kafir in the 1920s and 1930s. Pockets of it, found in most farming operations because of its versatility, were scattered throughout the Flint Hills. From the 1890s through the 1930s kafir's crop cycle, planting through harvesting, was an integral part of the year's planning. During the 1940s it rapidly lost ground to milo, a new alternative feed grain to the labor-intensive kafir.

Kafir, known scientifically as *Sorghum saccharatum* var, belongs to the same species as broom corn, dura or Jerusalem corn, and the grain and ensilage sorghums. It is classed as a nonsaccharine variety of sorghum. Kafir was introduced to the United States in 1876 at the Philadelphia Centennial Exposition by Natal, a south African country. Its name derived from the Kafir tribe. A standard source of 1907, Liberty Hyde Bailey's *Cyclopaedia of American Agriculture*, noted, "The common word 'corn' has been transferred from maize or Indian corn to these kafirs and durras in some regions, and confusion has resulted. For this reason, the compound word 'kafir-corn' evolved."¹

The Georgia State Department of Agriculture obtained a variety of kafir for trial in the southern states. Later the United States Department of Agriculture obtained seed for additional trials. In 1889 the Kansas Experiment Station planted test plots of kafir because of its ability to withstand heat and drought conditions. Farmer's Bulletin No. 288 of the U.S. Department of Agriculture stated that kafir was "drought resistant . . . able practically to suspend growth during very dry periods. Later if rain falls, these varieties will resume growth and will produce a crop of seed . . . with ten or twelve inches of rain during the growing season." Kansas farmers grew kafir because it produced high grain yields and considerable quantities of excellent forage. The Farmer's Bulletin further stated, "The stalks and leaves of Kafir remain green until the head is fully matured, while in the varieties of the dura group they are nearly dead when the seed ripens. For this reason kafir-corn is usually considered a better forage plant than any of the other sorts."²

There were three main varieties of kafir grown--white, red, and black-hulled. Kafir heads were slender, cylindrical, and from ten to fourteen inches long. The hulls or glumes surrounding the seeds contained the color. The egg-shaped seeds were grown on spikelets with the larger end outermost. Normally the heads emerged fully from the boot in the black-hulled variety. Stems were about one to two inches in diameter. The stalks were composed of twelve to fifteen nodes. Stalks attained heights of five to six feet in dry-land sections, while reaching six to eight feet under wetter conditions. The pith was semi-juicy, sub-acid, and only slightly sweet. Generally each stalk carried twelve to eighteen alternating leaves. Each leaf was two to three feet long and from three to five inches wide. Kafir reached maturity in 110 to 135 days.³

Black-hulled kafir was chosen by Wabaunsee County farmers because of the full protrusion of the head from the boot, its short growing period, and its overall adaptation to

Flint Hills farming. Later in the 1930s Sunrise, an improved variety of kafir, was also grown. Both Florence Simon and Lowell Thierer, life-long farmers along the west fork of Mill Creek, told me why they grew kafir on their farms. They stated that it was drought-resistant, did well when other crops failed, and met a variety of needs within their farming operations. In the 1925 census they reported ten and six acres grown respectively on their farms.⁴

Kafir grew well on a wide variety of soils, including good, tillable land suitable to corn and newly broken sod. Various agricultural bulletins concur with the statement, appearing in Farmer's Bulletin No. 288, that "sorghums are generally considered exhausting in their demands on the soil and injurious in their effect on succeeding crops. They are vigorous-growing, comparatively shallow-rooting plants, which draw quite heavily on the fertility of the surface soil." Farmers were aware of this early; they used manure and barn cleanings as fertilizer, rotated crops, and plowed deep in the fall to remedy the problems.⁵

"Field selection was determined by the other crops we were going to plant," according to Thierer. "We liked to plant kafir along the creek timber to protect the corn from raccoons and squirrels." Kafir thus acted as an insulating crop to protect the higher-valued crops. Alfalfa, corn, wheat, and oat fields were determined first. Kafir was always planted in the left-over parts of fields. Farmers could not plant kafir near barley because of the chinch bug problem. Along Mill Creek kafir was planted either to finish rows and fill corners of larger fields or in smaller, upland fields. Ideally, it was planted in several places to achieve total acreage.

Seed-bed preparation began by deep plowing to break out kafir's root system. Fall plowing was preferred by Simon and Thierer, but they also did some spring plowing. Depending on soil conditions, spring plowing sometimes followed fall plowing. Thierer said he used "a riding, three-wheeled, two-bottom plow pulled by four horses walking abreast" to do his plowing. Simon used a "one- or two-bottom plow, followed by a disc and then a harrow to pulverize the clods" to complete seed-bed preparation. The disc used was from seven to eight feet wide and was pulled by four horses walking abreast. "If the field had been broken up enough with the plow and disc, I preferred listing instead of harrowing, thereby eliminating one trip through the fields," commented Thierer.

Seed was kept back from year to year. Farmers never obtained initial supplies of seed from a dealer, but got their starts from a neighbor's seed. To obtain the next year's seed, farmers walked their fields, carefully selecting for desirable head and stalk characteristics. They then stored the seed on the head under dry conditions for the winter. "We kept our seed in the horse for proper storage conditions and protection from mice," stated Simon. Farmers also stored the heads in the rafters of sheds or outbuildings. The men later would hand-thresh these carefully kept heads by beating them against the side of a large iron kettle. To remove the hulls, they ran a mittened hand through the seeds, rubbing the seeds together and against the side of the kettle. Winnowing followed, as they poured seed from bucket to bucket, allowing the wind to blow away undesirable particles, and poor-quality, deformed, wrinkled, or incomplete seeds. "About 6-8 pounds of seed was needed per acre," according to Thierer. Because farmers never knew how much reseeding they would have to do or how many end rows they might have to plant, they always kept back three times the amount of seed they thought they would use. Leftover seed became chicken feed.

Planting time arrived in May, after the corn was planted but before the first cutting of alfalfa. Kafir was planted in rows spaced 42 to 44 inches apart and about 3/4 to one inch deep in packed soil. "We used a horse-drawn, one-row lister to build up ridges of soil. Then we would go back through the field using a one-row adapted corn planter," stated Simon. "A three-horse tricycle lister was used to plant kafir," said Thierer. "When my dad bought

a used lister in 1919, it came with the plates already made for kafir." A child old enough to drive a team but too small for other work did the planting, usually with an old team who knew more than the kid driving. "One horse walked down the last planted row as a guide to planting the row you were on," Thierer said. "The lister tended to sway and tip as the horses walked through the field pulling the tricycle lister. Children were used for balancing the machine, which would have tipped over with the weight of an adult."

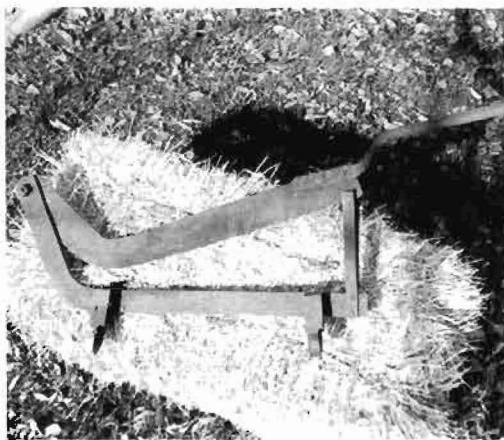
These were the standard kafir-planting techniques along Mill Creek. The hand-broadcast method was employed only to finish out a field point where kafir would be grown for hay fodder. In the Flint Hills kafir was not ordinarily used for hay or pasture as it was in other parts of the state. Nor was it produced with traditional wheat equipment as in western Kansas.

Straight, even rows of uniform height made a good stand, after which the kafir required cultivation. Weeds were a problem for the slow-growing kafir until it grew tall enough to overpower the weeds. The first cultivation, with a curler, both killed weeds and knocked down the lister ridges, throwing the dirt down around the two-to-three-inch-tall plants. A harrow might have served this purpose, but was not considered as effective as the curler. Two to four more trips across the field with a standard cultivator ensued. These generally came when the plants were six to eight inches high, again at eighteen inches, and then just before the plants reached forty inches. Forty inches was the maximum height the cultivator could handle. Approximately two weeks passed between each cultivation, and women and children hoed by hand any weed patches that were missed by the cultivator.

Harvesting commenced in September after the first light frost. "The kafir stalk was about five and a half feet to six feet in height, and according to Lowell Thierer, "You would walk through the field testing different kernels by pushing on them with your thumb nail. If they couldn't be dented, it was time to harvest. You still wanted the stalk green and full of juice for fodder."

Harvesters opened a field by cutting a row through the field with a corn knife so that the team would have a place to walk. They then walked through the field cutting patches of "down" (or lodged) kafir with the corn knife, hand-tying it into bundles, and setting it aside for later shocking.

Harvesting was accomplished with either a corn-sled cutter or a corn binder, depending on which machine the farmer had. The corn-sled cutter, pulled by a team, might be a one- or two-row model, that was operated by one or two people. If two-rowed, then one person rode on the sled collecting an armload of stalks, then stopped the team to add them to the shock; meanwhile the other person, having added an armload of stalks to the existing shock, walked up to where the partner had stopped, stepped onto the sled, started the team, and began collecting the next armload. The last person to add an armload to the shock tied it loosely with a single piece of twine.



*Kafir knife used by Lowell Thierer, Wabaunsee County Kansas. The locally-made knife was hung on the side of a wagon for use.
Photo by Joyce Thierer*

Using the binder required that only one person drive four head of horses, one team hooked to the tongue and the other team out as lead. The binder cut and tied the stalks together to form a bundle, approximately one foot in diameter where the twine was tied. Once three to four bundles were gathered, the driver tripped the carrier to dump them onto the ground, where they lay to await shocking at a later time. "With a good fresh team you could cut one-half to three-fourths of an acre an hour with a binder. The cutter was faster than the binder as the cutting and shocking occurred simultaneously. Dad said several times how farmers field-tested the two techniques," Thierer said. "The cutter was faster as one trip through the field took care of stalks to shock, but with the binder it took two trips through the field." The binder, however, produced bundles which lasted better in the shock, because the bundle's time on the ground allowed the butt of the stalk's joint to "heal over." This kept the juice in the stalk once it was shocked. The juice enhanced the palatability of the stalk for cattle fodder.

After the binder cut the crop, two or more people went out to shock. A shocker first set two bundles upright like the letter "x," intertwining the heads of the two bundles for stability, and setting the butts securely on the ground. Next two more bundles were placed with the "x" going in the opposite two directions, the heads again interlocked. The trick to shocking was getting these four key bundles secured. Up to ten bundles were leaned firmly around the key bundles in a circular manner. "If you didn't work carefully the shock got off, or leaned. This enabled the wind to blow your shock over easier and ruin the grain," Simon said. Thierer claimed, "It took two to three times as long to shock a field as it did to cut it with a binder."



Photograph of "Kafir, as grown in Kansas" [in 1907]. It depicts shocks of bound kafir as were common in Wabaunsee County.

Simon and Thierer both agreed that shocking was dirty, exhausting work. The leaves cut workers' skin, the heads swatted them in their faces, and the field seemed to go on forever. "Your sweat turned the kafir field dust to mud," Thierer remembered. "When it was dry it was hot, itchy, difficult work, but when a little shower or a heavy dew settled on the dusty stalks they became muddy knife blades that slipped through your hands making shocking even more difficult." "It wasn't just men who worked with kafir," said Florence Simon. "I've done my share of cutting and deheading. I started most of our shocks because mine stayed; and I wore women's clothes in the field."

The next phase of harvesting was removing the heads from the stalks, a process that used a kafir knife mounted on the side of a wagon. Heading machines, as described in agricultural bulletins for use in western Kansas, saw little use in the Flint Hills, where kafir was raised primarily for on-farm use, not as a cash crop. Two adults worked on the ground, while one adult and one or more children worked in the wagon. When the wagon came alongside a shock, the two people on the ground took turns lifting bundles up and into the knife so that all of the heads protruded through the blade and over the wagon box. The children wrapped their arms around the heads, whereupon the adult in the wagon pulled the

knife, guillotining the heads. The workers carefully placed the heads in rows for ease in emptying the wagon box.

People on the ground rebuilt the shock with the de-headed bundles. Three bundles were thrown on the ground, stacked one-on-top-of-another, and the other bundles were arranged around the key bundles in a circular manner. The wagon then moved on to the next shock, and the process continued until the wagon was filled. The headless shocks would stay in the field until they were needed as fodder. The heads were hauled to where the threshing was to be done, pitched into a pile, and covered.

Threshing, which completed the process of harvesting, usually was done around Christmas, but earlier if the threshing outfit was available. The thresherman made his set near the stack of heads. During the 1920s the thresher that worked Mill Creek was powered by a Rumely tractor. The thresher, owned by Adolf Maas of Spring Creek, was set for kafir by adjusting the concave teeth and slowing the cylinder. The owner operated the machines. Two people rhythmically and evenly pitched heads from the kafir stack into the feeder at the front end of the thresher. The heads had to fall from the pitchfork or bundle fork evenly and continuously to prevent mechanical problems. As the stack dwindled, another person kept the heads pitched within reach of the first two people. One or two men worked at the back of the thresher, measuring grain one-half bushel at a time. The grain was either sacked in ninety- to one-hundred-pound burlap bags and placed in the wagon or dumped straight into the wagon. Bagged grain was hauled to a storage bin and dumped. The bags were returned to the thresher to be refilled. However, if the grain had been dumped loose into the wagon box, one or two people would use scoop shovels to throw the grain into the bin.

"In the 1920s, the owner of the thresher was paid an average of 5 to 6.5 cents per bushel, with as much as 8 cents being paid at times. The thresher's counter determined the number of bushels you paid for," stated Thierer. "The other threshers, if they were hired hands, were paid \$2.00 to \$3.00 per day in the 1920s, and down to \$1.50 per day in the 1930s, but neighbors traded labor." Six to eight people served as a threshing crew.

The first year a combine was used for kafir on Lowell Thierer's farm was 1935. He described it as an Allis-Chalmers combine with a cutter bar of five feet and a bin capacity of fifteen bushels. Thierer said, "The cutting bar was adjusted more upright for ease of handling heads. I pulled up to a shock, got off the tractor and held each bundle to be gleaned, reshocked the bundles, got back on the tractor and moved to the next shock to repeat the procedure." This method was fairly typical.

The primary use of kafir in Wabunsee County was for grain rather than hay, pasture, silage, or a soiling crop. Kansas City routinely made market quotations on kafir, but very little was sold. The kafir produced in this county was used on the farm in a variety of feed rations.

Many experiments were conducted all over the Great Plains to determine kafir's usefulness as a finishing grain. Kansas State College at Manhattan had two theses on kafir and seven on sorghum written in the 1920s. Common farm journals also carried articles on the usefulness of kafir, and state agricultural bulletins poured out their findings as well. For example, a Texas Experiment Station Bulletin printed extensive chemical analyses comparing kafir and corn. The findings agreed with Farmer's Bulletin No. 288's statement that kafir "compared very favorably with corn in food value. A bushel of the grain is worth about four-fifths as much as a bushel of corn from the standpoint of nutrition. Chemical analyses indicate that the grain and fodder are about equal in feeding value of corn, but are slightly less digestible. The prices usually offered for the grain are much less than it is really worth

when compared with corn." The bulletins also listed a wide variety of rations and feeding programs for beef and dairy cattle, horses and mules, pigs and hogs, chickens and other poultry, and sheep.⁶

Simon and Thierer, when asked about the uses of kafir on their farms, both stated that kafir was used as the primary component in chicken feed on farms all along Mill Creek. In the 1920s and 1930s, as earlier, chickens were one of the few money-makers on the typical Flint Hills farm. The farm woman's flock provided not only eggs and meat for the table, but also "egg money" that bought groceries and many of the clothes and luxuries for the farm family. Egg money, along with milk and cream money, provided the weekly paycheck. Simon laughed, saying, "Egg money even bought repairs for the machinery." When fed whole, kafir also served as a finisher to the butcher flock. Finely ground, threshed kafir was an excellent feed for baby chicks. Kafir was fed to the laying flock in two ways: threshed, it served as the grain component of the ration, but as Simon described, "Heads were thrown to the flock to keep the chickens busy in winter scratching and eating without pecking on each other." Corn and wheat were considered too fattening for routine chicken feed.

The next-largest use of kafir, Simon and Thierer explained, was for pigs and hogs. They thrived well on slop containing threshed kafir and skim milk. Kafir heads were infrequently pitched to the pigs. Ground kafir was fed to bucket calves, because the ration acted as a constipator to counteract scours, and they required less milk on this diet. Milk cows were also fed ground or whole threshed kafir, ground kafir heads, and occasionally whole heads. The head part was considered to add bulk to their diet. The milk cows also received kafir fodder. Feeder cattle received as a finishing ration either threshed kafir or ground kafir heads. Kafir fodder was primarily fed to beef cattle. "On a cold day," Thierer remembers, "one-and-a-half bundles per cow and calf plus alfalfa were fed. Kafir was added because it raised the heat value of the feed." Kafir grain, as a rule, was not fed to horses or mules because farmers interviewed said they them fed oats. Thierer noted, however, "During the 1930s, with the shortage of feed, horses and mules were often given a bundle as a supplement or as a change from their regular diet."

Many of the agricultural bulletins discussed the food value of kafir for humans, and a Texas bulletin even gave recipes.⁷ Simon and Thierer both said their families never considered eating it, even if it were ground into meal. Both, however, had eaten popped kafir. They said it "wasn't bad, but not as good as popped corn." Thierer laughed and said, "It was best when popped by holding the head over the tractor exhaust and eating it as a snack in the field."

Kansas led the plains states in production of kafir, with Butler the best known kafir-producing county. El Dorado, the seat of Butler County, annually sponsored a harvest festival honoring kafir. Booths were erected up and down Main Street, there was a parade of township-produced floats, and stores and homes were decorated using only the national colors and kafir stalks, heads, or kernels. Prizes were awarded to the best in each category and for exhibits of the best cooking utilizing kafir meal or flour. El Dorado even had a "kafir yell" and a queen.⁸

Wabaunsee County did not promote or celebrate kafir like Butler County, but it did contribute to the overall kafir production of Kansas. In fact, in one isolated case, in 1926, Wabaunsee County produced 101 more acres of kafir hay than did Butler. (See table showing the comparison between the counties and the overall state production.)

Kafir production declined in the 1930s to 1940s, but kafir continued to be grown along Mill Creek in isolated pockets up until the mid-1950s. The decline in numbers of

diversified family farms, especially small family chicken operations, and the introduction of new machinery such as the combine, led to kafir's downfall. Farmers clamored for a new feed grain crop to replace kafir and its hand processes, horse-drawn machinery, and labor-intensive culture. That crop was milo, a grain sorghum that could be harvested readily with the combine, and it nudged its grandparent, kafir, into obscurity.

Table
Kansas Kafir Production

<u>Year</u>	<u>Acres</u>	<u>Value \$</u>	<u>Bushels</u>
1920			
(State)	968,368	23,632,072	19,529,850
(Butler)	27,856	689,999	542,060
(Wabaunsee)	6,642	208,788	184,352
1922			
(State)	971,963	17,271,072	17,523,272
(Butler)	25,060	494,811	511,917
(Wabaunsee)	9,256	235,842	256,816
1924			
(State)	1,081,087	22,753,550	22,710,845
(Butler)	36,983	951,507	812,427
(Wabaunsee)	15,512	421,578	464,730
1926			
(State)	1,111,397	17,444,735	16,461,107
(Butler)	33,806	580,427	600,804
(Wabaunsee)	13,097	274,071	251,360
1928			
(State)	1,036,760	19,731,870	23,320,208
(Butler)	33,589	637,013	661,440
(Wabaunsee)	12,108	290,386	326,565
1930			
(State)	974,107	12,329,083	11,727,128
(Butler)	42,867	371,430	291,242
(Wabaunsee)	11,466	163,451	179,872
1932			
(State)	1,258,965	6,472,654	14,953,360
(Butler)	37,666	233,831	662,926
(Wabaunsee)	11,062	83,795	298,680

Sources: Kansas State Board of Agriculture, *Biennial Reports*. Acres include all planted to kafir, whether harvested for grain or for forage only.

Notes

1. L. H. Bailey, *Cyclopedia of American Agriculture*, Vol. 2 (London: MacMillan, 1907), p. 384.
2. Ibid.; L. E. Willoughby, "History, Varieties and Seed-Bed Preparation," Kansas State Board of Agriculture, *Biennial Report*, 1925-26, p. 197; C. W. Warburton, *The Nonsaccharine Sorghums*, U.S. Department of Agriculture, Farmers' Bulletin 288, reprinted in Kansas State Board of Agriculture, *Report for Quarter Ending March, 1912*, p. 115.
3. Warburton, *Nonsaccharine Sorghums*, pp. 115-16.
4. Florence Simon, interviewed by Joyce Thierer, 28 October 1984; Lowell Thierer, interviewed by Joyce Thierer, 4 November 1984. Detailed interviews with these informants were also the source for the following discussions of cultural practices throughout the kafir crop year. Discussions in these interviews were based upon and departed from material in "The Nonsaccharine Sorghums, Part II," a collection of seven reprinted articles from a variety of sources, Kansas State Board of Agriculture, *Report for Quarter Ending March, 1912*, pp. 197-312.
5. Warburton, *Nonsaccharine Sorghums*, p. 117.
6. Kansas State University Libraries, Card Catalog; J. B. Adams, "Grow Kafir-Corn and Prosper," address to an association of bankers of Kansas and Oklahoma, reprinted in *The Earth*, May 1912, p. 18; F. D. Coburn, "Mostly About Milo and Kafir," reprinted from *Mail and Breeze* in *The Earth*, May 1912, pp. 13-14; "Kafir: The Dry Land Corn" (Our Junior Farmers Series), *Successful Farming* 21 (June 1922): 30-31; F. R. Marshall, "Kafir Corn and Milo Maize for Fattening Cattle," reprinted from Texas Experiment Station Bulletin 97 in Kansas State Board of Agriculture, *Report for Quarter Ending March, 1912*, pp. 131-32; Warburton, *Nonsaccharine Sorghums*, p. 128.
7. F. W. Davis, *Kafir, Feterita, Milo*, Texas Department of Agriculture, Bulletin (1915), p. 17.
8. On kafir in Butler County and the Kafir-Corn Carnival of El Dorado, see Joyce Thierer, "The Kafir-Corn Carnival in El Dorado, Kansas," paper read at a District Conference of Phi Alpha Theta, Topeka, 1986.