

IMPORTANT STEPS IN GROWING GRAIN SORGHUMS

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1. Terrace the land if it is subject to washing, or in West Texas if there is any water run-off.

2. In Northwest Texas, prepare the land by deep listing or flat breaking in the spring. Preparing the land in the spring in that section has given as good yields as when listed or plowed early. In other sections, prepare the land similar to the way in which it is prepared for corn.

3. It is suggested that the crop be fertilized in the sandy sections, except in West Texas, similarly to corn by applying from 150 to 200 lbs. of a mixture having approximately a 1-2-1 or a 2-3-1 ratio of plant food, such as 6-12-6, 6-10-7 or 6-9-3. A side dressing may also be made. On light, sandy soils and on loam soils that have been in cultivation a long time, more potash is required than on newer fields of sandy loam.

4. Plant only well bred seed which was developed by the Agricultural Experiment Station or other breeders. There are a good many certified seed growers in Texas who are increasing the pedigreed strains from the experiment stations.

5. Do not plant grain sorghum seed too early. In Northwest Texas, the best dates are from May 15 to June 15. If planted earlier the plants will head out during the dry period in summer and will result in a low yield. Kafir may be planted somewhat earlier than the other grain sorghums. Hegari should never be planted until the ground has become thoroughly warmed up. At the Beeville station in South Texas, Kafir gave the best results when planted from March 10 to April 20, and Hegari, when planted in May.

6. The seed should always be treated if any kernel smut is present. Even if there is no smut, it usually pays to treat the seed on account of getting a better germination, especially such sensitive seed as hegari and feterita, which do not germinate well unless moisture and soil temperature conditions are favorable.

7. The treatment consists of placing the seed in a tight container such as a barrel or oil drum arranged so that it can be revolved on an axis, sprinkling two to three ounces of powdered copper carbonate on the seed and then revolving the container so that every seed receives a coating of the powder.

8. Do not plant too thick. At the Lubbock station the best yield of kafir has been obtained by spacing the plants from 3 to 6 inches apart in 3 to 4 ft. rows, and for milo maize, by spacing the plants from 24 to 36 inches apart. The difference in spacing is due to the ability of the milo to produce suckers and thereby adapt itself to conditions of moisture. Grain sorghums should be planted either in normal 3 to 4 ft. rows or in paired rows, (skipping every third row) but not in 6 ft. rows, since the wide rows gave considerably smaller average yields in tests conducted by the Texas Agricultural Experiment Station.

9. Give only shallow summer cultivation because yields are often greatly reduced by cutting important feeder roots when cultivating too deep. Experiments have proved that the main object of cultivation is to keep down weeds.

10. If any off-type or hybrid stalks appear in the field, they should be pulled up to prevent any crossing with pollen from the hybrids.

11. If pure line pedigreed seed has been planted, select a sufficient amount of seed from vigorous stalks, producing plump and well matured seed for planting the following season.

12. Thresh the planting seed by hand on a washboard to prevent the seed from cracking, or with a hand-thresher and store in a dry place away from rats. If necessary, fumigate with highlife in a tight bin for 24 hours, at the rate of 1 lb. for every 100 cu. feet of space and then thoroughly ventilate so as not to injure germination. Keep fire away from highlife, as it is very inflammable.

13. Harvest the crop as soon as it is ready, as otherwise it may be seriously damaged by being exposed to the weather and birds.

14. The crop may be harvested for grain either by hand or with a header attachment on a wagon, or with a combine. For forage the bundles should be harvested with a row binder. Milo maize is harvested almost entirely for the grain only, on account of its dry stalk; whereas, the other grain sorghums are harvested a great deal for forage as well as for grain. Quadroon milo which was developed by crossing yellow milo maize and blackhul kafir, and then back-crossing on milo, has a sweeter and more juicy stalk than the yellow milo.

15. On account of milo maize blight disease which either kills or stunts the plants, thereby reducing the yield, only seed of the blight resistant strain of milo should be planted on infected soil. This disease is wide spread over the western area of Texas and is spreading to South Texas. Fortunately, the other grain sorghums and also sweet sorghums are either immune or resistant to this new disease.