Decided opinions regarding the "running out" of sorghum (Holcus sorghum L., Andropogon sorghum Brot., and Sorghum vulgare Pers.) seed still prevail. Popular writers often have advocated the selection of seed heads to improve the yield and other characters of grain-sorghum varieties. A simple experiment was conducted with Sunrise kafir at the Southern Great Plains Field Station, Woodward, Okla., to determine the effects of continuous selection.

**EXPERIMENTAL METHODS**

In the autumn of 1918, seed heads were selected from the best-appearing row in a Sunrise kafir plat, and the remaining heads were harvested and threshed in bulk. In 1919, one plat was planted in head rows with seed from individual selected heads, and another plat was planted from the bulk seed. Each year since then heads have been selected from the best-appearing head row, this continuously selected seed being the progeny of a single head planted in 1919.

Seed for a bulk plat has been obtained each year from bulk-threshed seed of the preceding crop. In the bulk plats there has been no selection, but noticeably off-type plants resulting from natural hybridization or mechanical mixture were taken out before harvest. Less than 1% of the heads were rogued each year. Heads from border rows equal to the number rogued were added to the crop from the bulk plats in order that roguing might not reduce yields. A third plat was added to the experiment in 1920. This was planted in eight rows from as many selfed (bagged) heads. Heads in each row were bagged before blooming each season and one of the bagged heads from each row was used for planting a row the following year. The eight pure lines of Sunrise kafir have been maintained in this way for 11 years.

In 1926, a fourth kind of selection was introduced. An increase field was grown for seed each year. This increase field was kept rogued and heads were selected each season for planting the following year. Bulk seed from this field was used in the experiments. As might be expected, fewer rogues were produced in the increase field than in the smaller bulk plats.