



In the photo (left), a technician is emasculating safflower flower for crossing. Hundreds of crosses are made every year.



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Safflower has been grown at the Mesa Experiment Station since 1937. In 1952 a special safflower research project was set up in co-operation with the U. S. Department of Agriculture.

Several strains showed excellent performance in 1956 yield tests. From them will come future varieties. Meanwhile, the varieties N10 and N6 are recommended—N10 for most plantings and N6 where root rot is a problem.

In 1956 experiments on field-size plots, yields were as high as 3,800 pounds per acre of N10 and 3,600 pounds of N6.

A Winter Crop

In Arizona, safflower is grown as a winter crop. Several methods of planting were tested in 1956, with highest yields attained when the safflower was planted in beds in rows 20 to 30 inches apart. Date-of-planting studies at Safford, Mesa and Yuma showed the best planting dates to be Dec. 1 to Jan. 1 in the Salt River Valley, Nov. 1 to Dec. 1 at Safford and Dec. 15 to Jan. 15 at Yuma.

For "Skip-row" Planting

Safflower may offer possibilities as a crop to be interplanted in "skip-row" cotton, if it can be planted before Feb.

MAYBE!

Based on current prices and yields, safflower may be the future oilseed crop of the irrigated Southwest. At present, however, growers should proceed with caution and obtain recommendations for their particular situations. Without an established market it is not advisable to grow safflower unless it is under contract for a guaranteed price.

New Cash Crop?

Safflower

Safflower is an important domesticated crop which has been raised for many centuries for the dye produced from its flowers. In recent decades it has become important for the oil in its seeds. Varnishes and white paints made with safflower oil have no "after-yellowing" like those made with linseed oil. Safflower meal is a good protein concentrate in cattle rations.

New Importance

Safflower has been raised for oil in the United States for about 20 years, but only in the past five years has it become of commercial importance. In 1950 about 1,000 acres were grown in Arizona, in the Mesa-Chandler area, but poor yields and quality plus lack of established markets discouraged production the ensuing year.



Safflower is harvested with a regular grain combine.

1. The safflowers would be combined before cotton layby time.

Special fertilizer and irrigation experiments at Mesa showed safflower responds well to nitrogen, with best results from 30 pounds per acre at planting and 50 pounds more in April. Irrigation requirements are similar to barley, although safflower—which isn't harvested until early July—needs two or three more irrigations than barley.

While safflower has always been recommended for heavy soils, excellent results in 1956 were obtained on light sandy soil when plenty of water and nitrogen fertilizer were furnished.

Use Regular Machinery

No special machinery is needed to raise safflower. Regular vegetable and crop planters, cultivators and combines are used.

Presently safflower is worth about \$75 a ton f.o.b. Los Angeles, compared to \$50 a ton for barley. Costs vary, but will average about \$10 more an acre than in raising barley. Comparative yield data isn't available, although in one of the 1956 tests where they were grown side by side, barley yielded 4,500 pounds an acre and N10 safflower 3,800 pounds

