

PERFORMANCE OF SYNTHETIC VARIETIES OF SUNFLOWER

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Abstract

Synthetic varieties of sunflower may be suitable for the present crop production system in Thailand. Ten synthetic varieties developed from 13 high oil lines and two check entries including DOA synthetics and Pacific 33, were evaluated for yield and other characters in two seasons in 1998 - 2000 using a randomized complete block design with four replications. The results showed that synthetic varieties flowered earlier and were shorter than Pacific 33, the check variety. However, the synthetics showed a longer range of flowering period and were more variable in height than the check. The score for head quality showed that most synthetics gave similar score to the check and DOA synthetics. Seed size of synthetic varieties ranged from 5.31 - 6.17 grams/100 seeds, whereas that of Pacific 33 was 5.41 grams/100 seeds. Seed yield of synthetic variety Low Oil (OP) was as high as 2.28 t/ha, whereas that of Pacific 33 was 1.91 t/ha. The results from the two seasons showed that most synthetics gave similar oil content to Pacific 33. This experiment showed the potential of these synthetics and that further yield trials are required before they can be released to farmers.

Key words: sunflower breeding, synthetic varieties, oil content.