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Shigemi Honma, Horticulture
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AGRICULTURAL EXPERIMENT STATION EAST LANSING

SELF-BLANCHE — A New Variety of Cauliflower

by Shigemi Honma

Department of Horticulture

INTRODUCTION

BLANCHED WHITE CAULIFLOWER heads command premium prices over unblanched ones. Curd blanching is normally done by tying the larger outer leaves over the head as it matures to keep the light off the curds. This operation is estimated as 70% of the production cost. The increase in wage cost has discouraged many growers, some of whom market unblanched heads at a lower price.

In 1971, the Michigan Agricultural Experiment Station released Green Ball, a variety with a charreuse green head¹. This was the first attempt to eliminate the costly blanching operation. Realizing marketing organizations and consumers may be slow to accept green cauliflower, a program was initiated in 1964 to improve the Snowball type cauliflower. The Self-Blanche variety, released by the Michigan Agricultural Experiment Station in 1972, produces wrapper or jacket leaves that curl over the head when grown under cool temperatures. Thus, this new variety does not require the tedious and costly hand operation of tying the heads.

ORIGIN AND DEVELOPMENT

Self-wrapping cauliflower lines were derived from hybridizing selections from the variety Winner Osenia, a Snowball type. Only plants showing a tendency to produce wrapper leaves that curl over the head were selected.



SELF-BLANCHE plant showing 5-in. curd wrapped with leaves.

¹ Honma, S., and Otto Heecht (1971). Green Ball — A new type of cauliflower. Mich. Agr. Exp. Sta. Res. Rep. 135.

Continued inbreeding within lines has some disadvantages such as reduced vigor and loss of fertility, but it was the most efficient method for establishing the desired characteristics. During the inbreeding period, lines were selected from common horticultural characteristics and self fertility. Since inbreeding lowered plant vigor, several inbred lines with similar character were massed to allow for open pollination to restore vigor. The seed samples distributed are from these open-pollinated plants.

DESCRIPTION

Plants of Self-Blanche mature 7 to 10 days later than Snowball M, but the crop can be harvested over a relatively short period. The heads are generally smooth, deep, solid, pure white, and finely textured. The variety freezes well and has superior flavor either cooked or raw. Large heads exposed to light become a yellow-cream color. Cut heads generally lack hollow stems. The variety shows some tolerance to frost.

The plants show good vigor, uniformity, have large upright leaves and are slightly smaller than Snowball M. The jacket or wrapper leaves curl, coalesce and twist over the head.

Heads 7 to 8 in. in diameter are well-covered; however, if larger heads are desired, the upright leaves may require tying. Vigorous vegetative growth before head formation may encourage larger heads as the taller upright leaves would shade the curd. The variety must be harvested at the right time to take advantage

of the self-wrapping characteristics. Experienced growers harvest the heads before they reach a diameter of 7 to 8 in. and when a 1-in. diameter of the head is visible.

PERFORMANCE AND ADAPTABILITY

Self-Blanche has been tested in experimental plots in East Lansing and on commercial farms in Michigan, New York, Indiana, Oregon and Florida. Under cool temperature conditions the self-wrapping character is readily manifested, producing premium quality heads. This character is not expressed if the variety is grown in warm temperatures, but quality heads free of hollow stem are produced by tying the leaves over the heads. This condition is also evident in the fall crop where buttoning occurs due to poor seedling growth or when older transplants were used. In such instances tying may be needed. Grower trials indicate that 90% of the crop was harvested in two cuttings.

CULTURAL REQUIREMENTS

The variety responds favorably to cultural practices recommended for Snowball type cauliflower. To promote good vegetative growth prior to head formation under Michigan conditions, apply 30 to 40 lb. of actual nitrogen per acre as a side dressing 2 weeks after transplanting and again 3 weeks later. Irrigate after each side dressing and throughout the growing season.

SELF-BLANCHE plant showing 9-in. head with wrapper leaves over the curd.

