

Association for Breeding Research and Crop Maintenance **Based on Biodynamic Principles**

Breeding Biography of a Biodynamic Variety



Onion

PROMETA

German Plant Variety Registry Code: Z349

Updated: 15/02/2017

Breeder:

René GROENEN

Variety Description:

PROMETA is a very early onion variety that can be harvested one week earlier than SUMMIT F1 Hybrid. Its growth pattern is particularly fine, with a round to high-round bulb shape and a slender neck. As a result, the transition from bulb to leaf is very abrupt, a characteristic which indicates good maturing and storage qualities. The variety demonstrates good uniformity and satisfactory yields. The onions are firm and store well. Dried outdoors, they keep until April. PROMETA has 4-6 inner rings and 2-3 layers of skin.

Breeding History:

In the year 2000, a variety trial comparison of different onion varieties was initiated, mainly with Rijnsburger types. Since then, the variety "Promo" was sown every year from seed sourced from single plant progeny or from the entire crop stand. This allowed a good insight into the variability and the potential of the variety. Since then, four generations have been bred; returning to previous generations was sometimes necessary because of the expression of undesired characteristics, such as an internal red coloration. Primary selection was carried out during the vegetative phase: single plant progeny was assessed on the field compared to the entire crop stand (and with other varieties). During maturation, single plants were always selected based on early maturity and vigor. At harvest, yield potential and uniformity (from marketable specimens) were important criteria. Among other selection criteria were storageability, bulb shape, slender neck formation, and number of inner rings. In the last years, Brix content was also measured. During the growth phase, selection was based on susceptibility to downy mildew (Peronospora destructor), as well as the number and form of flower stalks. Individual plants that were later or less infested by downy mildew were harvested and sown separately. The number of flower



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stalks should be reduced to ensure that the onions tend not to break the vegetative state (like shallots or of the flowering stalks should be sturdy, but not too long and rather compact so the plant is more in itself rather than expend itself outward.

The variety was approved by the German Plant Variety Registry in 2012. Maintenance breeding is carried out by De Beersche Hoeve, Netherlands. The organization of the multiplication and commercialization of sale seed is, among other things, the responsibility of the Bingenheimer Saatgut AG.