

Elstar Mantel®

Crunchy and firm mutant,
ripens significantly later.



ROELOFS
Tree nursery

Elstar Mantel®

Crunchy and firm mutant,
ripens significantly later.



Origin

Rein Mantel discovered this mutation in 2015 on his fruit farm in Biddinghuizen, Flevoland, Netherlands. Elstar Mantel® is an apple with a significantly crisper and harder pulp compared to Elstar Elshof®. The fruits ripen 5-10 days later compared to Elstar Elshof®. The preliminary studies took place on young trees on the first crops (2019) and 2nd crop (2020), further research will continue over the next years. Plant protection rights was granted for all EU countries on the 2-12-2020 under the number 2016/3087.

Current studies are available on www.fruitful.nl and www.boomkwekerijroelofs.nl.



Variety Properties

Colouring

The fruits are uniformly bi-coloured. Everywhere in the tree and inside the tree, the colour is homogeneous. The colour is medium red and does not turn purple when ripening. The Elstar Mantel® colours earlier and ripens 5-10 days later than Elstar Elshof®. Due to the later harvest time, extra colder nights are more likely to occur compared to other Elstar mutants. Colder nights will contribute to a better and easier colouring of the fruits. According to the Elstar colour card: the red colour of Elstar Mantel® was a fraction more intense (6.3) than that of Elstar Elshof® (5.8).

Flowering

The blossoming period is comparable to Elstar Elshof®, or a fraction later. The flowers and flower stems are dark pink. Further research on the flowering will be published as the studies become available.

Taste

Because of the increasingly warmer summer months a firmer and more robust apple add great value to growers and consumers. The firmness of the fruits on young trees measured in 2019 on 4th of September at the research institute in Randwijk (NL) showed the following results: 7.0 kg/cm². In contrast, Elstar Elshof® measured 0.9 kg/cm² lower, namely 6.1 kg/cm². The Elstar Mantel® had a Brix of 14.1, a firmness of 6.7 kg/cm² and starch content of 4.8. Notice that this apple was picked on the 12-9-2019, this was eight days later than Elstar Elshof®. In 2020, measurements were carried out again at the research station in Randwijk which confirmed the higher firmness (0.4-0.5 kg/cm²) and the later harvest time of this mutation. This mutant has a typical Elstar taste. The sugar content of Elstar Mantel® was significantly higher than the Elstar Elshof® apples. The sugar levels measured on 4-12-2020, after mechanical storage (at 1.5°C) and after a shelf life of 1 week (at 18°C) show results for the Elstar Mantel®. With a Brix of 14.1, the Elstar Mantel® was sweeter than the Elstar Elshof® with a Brix of 13.2.

Cultivation and production

For harvest to commence, reaching the right starch conversation point is crucial, which should be above 4-4.5. The harvest window is wider than that of Elstar Elshof®. The apples picked on 24-9-2020, still had a firmness of 6.53 kg/cm². That is confirmed by Rein Mantel's own growing experience. The apple stalk is just as long as Elshof. The fruits hang in groups of 1-2 apples per clusters. Moreover, studies in 2020 showed that the fruit weight is higher: Elstar Mantel (192 grams/fruit) and Elstar Elshof (163 grams/fruit). The production of young trees was the same as Elstar Elshof® and Elstar Mantel®, namely 6.8 kg/tree and 6.9 kg/tree, respectively. The fruit size is more sizeable than Elstar Elshof® and comparable to Elstar PCP®, which indicates that thinning of the fruit is less labour-intensive.

Storage

Due to firmer fruits, a longer storage time is expectable. Research is currently ongoing in the ULO cold-store. Further storage studies will follow.

Tree nursery Roelofs

Ooievaarsweg 18
3897 LG Zeewolde
Holland

Tel. +31-(0)36-52 39 323
Fax +31-(0)36-52 39 316

sales@boomkwekerijroelofs.nl
www.boomkwekerijroelofs.nl



ROELOFS
Tree nursery