

Interview with Martin Keller

How are the conditions for packaging (cartons, plastic etc.)?

There are plastic bags, paper bags or cardboard boxes, however, for the delivery to our customers we use crates (Harasse).

How do you store the apples and how long can you keep them?

There are two cold storages where the apples are stored. Depending on the sort, some are stored colder (0-1 °C) or less cold (2-3 °C).

We also have the possibility to take the apples to a so called CA-stock (CA = controlled atmosphere), which is located not too far. The special effect is the oxygen, which is being extracted from the apples. Afterwards a special gas is added into the room and being inhaled by the apples to stay firm and fresh.

The duration of the storage of apples depends on whether the apples are stored in a normal cold stock or a CA-stock as well as on its sort. In CA-storage apples can be kept three to five months longer than normally.

How do you differ between using the apple for sale (grocery shop), food production (keeping them for yourself) or as animal food (for cows etc.)?

This is already decided at harvest time:

The beautiful apples are to be sold (Most farmers differ between the sizes because of selling them to grocery stores. As Martin Keller doesn't sell them to stores, rather to schools and customers directly, he doesn't split them into categories: „Some people prefer the smaller apples, others the bigger ones but all of them are perfect sized.“)

Slightly damaged apples are used for apple cider and apple juice, what is done by a farmer friend of ours.

The rotten apples are used as fertiliser

If there are any leftovers in winter, our cows are happy to get them.

When and how does the harvest take place?

Depending on the sort we harvest at a different time. The harvest period lasts from mid-July to the beginning of November. Some apple sorts like Amethyst or Calmac can be harvested in July, followed by Gravensteiner, Boskoop and Golden in August. Finally, in November late sorts such as Jazz or Breaburn are harvested. The full work is done by my wife and myself.

Our apple rows are not very long. However, farmers who live only from apple production and thus cultivate large plantations use tractors with built-in lifts to harvest as efficiently as possible. The apples are then divided into (beauty) classes, because big grocers usually prefer to buy apples that meet a certain ideal. The perfect apple has a size average of 7-8 cm. The apples, which are too big or too small, are sold by the grocers as second class apples for lower prices.

We do not make any difference in the size of an apple. Our customers, for example kindergartens and schools, like to be able to choose from large and small apples.

How do you protect apples from damages (birds, hail, insects etc.)? Are there differences between sorts of apples regarding protection?

Birds such as starlings (Staren), insects such as fruit maggots and bark beetles, mice and difficult weather conditions such as hail or severe storms are dangers for the apples. The apples can be

protected with pesticides, which serve to protect the apples from fungal diseases (Pilzbefall) or insects, as well as special nets, which for example are supposed to protect against hail or birds. In addition, the roots of apple trees are often infested by mice. The mice eat the roots, which can lead to the death of the tree. For this reason there is the possibility to burn a strip of grass with a width of about 20 to 30 cm. By burning a strip of grass the mice stay less near the apple trees because mice rather stay with high grown grass. With this kind of method the trees are better protected. Another way to protect the apple tree against frost is to paint the trunk of the tree with white paint. The white paint reflects the sun rays (Sonnenstrahlen) and to prevent the tree from getting frost cracks. It also protects against bite damage from wild animals. To prevent the tree from falling over after planting, it is also important to create a good base for the tree. This is often done with a tree scaffold (Baumgerüst).

Unfortunately, there are no apple sorts that are better protected against hazards than others.

How long does it take until the first apples are grown?

The apple trees are grown directly in the ground in the tree nurseries. Before buying an apple tree, you need to decide between one-year-old and two-year-old trees. I tend to buy two-year-old trees because of being able to use the space for other trees for a year and continue to harvest apples.

Usually apples can be picked from newly planted trees from the 3rd year onwards.

What is the first step of the "apple-lifecycle"?

As first step the apple tree is being selected and planted.

What do you think about this procedure, is there anything you would want to change?

The ideal idea would be that the producer can sell his goods directly to the consumer, in order to also be able to strengthen the agricultural value added. However, the intermediary trade plays a major role.

The farmers are put under real pressure because the grocery shops want them to sell the apples earlier. This influences the quality in a bad way because the apples are then far from being as aromatic as if they could ripen (reifen) longer.

Martin Keller mentioned, that he also fails to see why apples have to be divided into beauty classes. We often observe in our shop that customers like to buy "too big" or "too small" apples. In grocery stores are usually only the standard sizes to buy.

Do you see problems (in future) for apple plantages?

In my opinion, climate change affects agriculture to the extent (Umfang) that we have to deal with certain situations differently. There are, for example, new fruits such as the Nashi pear from Asia, which can now grow in our region. However, it will be the case that there will be more drought and water shortages. In recent years we also had the problem that after the winter the weather got warm quickly and then suddenly there were cold spells (Kälteperioden) again. What resulted in large frost damages.

Spraying pesticides will certainly be a major challenge in the future. The regulations are becoming more and more strict due to environmental protection (e.g. distance from water bodies, which must always be guaranteed). In addition, there are continuous controls and samples taken by the state. Every year more and more pesticides are banned and new products have to be found to maintain the quality.

In any case it would be important and useful if consumers (again increased) learn that apples are also edible which do not look absolutely perfect.