

Cultivation guidelines



Kaite

ENZA ZADEN



Variety characteristics

- Yellow
- Fast colouring
- Blocky
- Average fruit weight approx. 190 g
- Stable fruit weight throughout the season
- Very good firmness
- Tm:0-3 resistant
- Not susceptible to the development of blind plants
- Elongates easily
- Easy and regular fruit set
- Average vigour
- High production

the power of our peppers
the power of Enza Zaden

Kaite



Kaite is an open crop with outstanding stamina. The fruits are firm and very uniform, with a stable weight throughout the entire season. The variety should be grown with a cautious strategy and can cope well with a slightly higher humidity in the greenhouse.

Kaite is a sweet pepper variety for heated cultivation. After two years of screening at various sites in the Netherlands, this variety was introduced in the 2014-2015 growing season. Various growers in the Netherlands adopted Kaite as their main variety in that season. Kaite thanks its position on the market to the favourable combination it offers of crop and fruit characteristics. Its open growth habit makes it labour-friendly and it can be grown with very little energy input. The variety is suitable for all customary sweet pepper growing systems in North West Europe: traditional, V-system in gutters or on the ground, 2, 3 or 4 stems, and preferably with approx. 7 stems/m². This variety can be sown from early October up to the second half of November.

This document is intended to serve as a guideline for growers who have decided to grow Kaite and who want to benefit from the experiences gained with this variety over the past years. The basic principles here are the most common situations in sweet pepper cultivation in the Benelux countries. We advise you to apply the information in this document to your own situation or consult your Enza Zaden sales representative for advice.

Start of cultivation

Kaite is a nice variety to propagate. It germinates quickly and uniformly. To maintain a nice, compact growth habit, we advise propagators to prick out the plants on time. This will often be a day earlier than with the majority of the other Enza Zaden varieties. Kaite is not susceptible to the development of blind plants. The plant can therefore cope well with artificial lighting systems. We advise planting Kaite approx. six weeks after sowing. The propagator should space them wide enough apart to avoid stretching.

After planting

Saturate the slab with water with an EC that is comparable to the EC level to be expected in the block after delivery. Ensure a slab temperature of 20 °C. Irrigate frequently in the first few days after planting. If the irrigation rate per nozzle varies, it is important to drip irrigate every four hours. When the plants have established a root system, the irrigation frequency can be reduced until the water content fluctuates between 70 and 80%. In low light conditions (100J/day) with moderate heating pipe temperatures, skipping irrigation for a day is also possible.

The greenhouse temperature should be maintained at 22 °C after planting until the plants have established a root system. Compared with other varieties, Kaite is light in colour in the



head of the plant. The plants stretch easily and can therefore develop a slender habit. Growers who use plastic screens should pay particular attention to this aspect. Remove the plastic quickly if the conditions become unfavourable. In the run up to the first fruit setting, take the available sunlight into consideration and adjust the 24-hour temperature accordingly.

Once the plant has rooted, the temperature can gradually be decreased. This is generally around 10-15 December, (for sowing date 20-25 October and planting date 1st week of December). Decrease the 24-hour temperature by approx. 1 °C per week, starting with the night time temperature, until the fruit has set. With a 3-stem system, the fruit in the 4th axil on the lateral branch may be set. Limit the first setting to one fruit per stem. On days with light levels of 100J/cm² or lower, the 24-hour temperature may be sometimes set to 18 °C or lower. Achieve this by keeping the day time temperature no higher than 20 °C and keep the day short by switching to the night time temperature of approx. 17 °C after about three o'clock. Day temperature should be reached later with this variety than with most other varieties. Realise the day time temperature over the period one hour before until two hours after sunrise.

After the first setting

After fruit setting, the 24-hour temperature can be increased but do keep adapting your heating strategy to the light levels. On good days, you can allow the temperature in the afternoon to increase to 24-25 °C and prolong the 'day' until sunset. On days with poor light levels, allow the temperature to reach 21 °C and gradually let the temperature decrease again well before sunset. An active climate is very important to keep the roots in good condition, so always ensure the plants are able to transpire. Permit setting again after one leaf axil has been skipped. The second setting should preferably consist of two stem fruits per stem. Kaite is a truly high quality sweet pepper. Compared with many other varieties, the fruits quickly change colour into a bright yellow. The variety has a strong resistance to damage caused by ears, blossom-end rot and other common factors that influence quality. This variety has also shown little or no sign of dry stem rot, however to completely eliminate this problem it is important to keep a close eye on the K and B values in the slab. Keep these values at 7 mmol/l and >130 µmol/l respectively. The post-harvest shelf life is above average all year round. Tails sometimes occur in the first fruit set if the average temperature was low at the time of setting. Light shrink-cracking can also occur in both spring and autumn. Sufficient air exchange between the greenhouse air and the outside air, and a constant EC regime can go some way to preventing this.

Cultivation in summer

Kaite maintains enough elongation during the entire year and therefore has a generative and open growth habit and character. During this period it sets easily and produces fruit quickly. The plant load can be up to a maximum of 40 to 45 fruits/m² from week 15 or 16. When the crop is balanced it can be easily steered using a temperature regime of 18 °C for



2-3 hours from sunset (with normal or sunny conditions). This pre-night temperature should be realised using a gentle decrease (provided the 24-hour temperature is suitable and does not exceed 22.5 °C). Then gradually heat to 21 °C at sunrise (or later when the crop is growing 10 cm or more per week). In poor weather conditions, heat from 13.00 hrs until 22 °C is reached and start the pre-night regime one hour before sunset

The venting temperature partly depends on the outside temperature, wind speed etc. Ensure that the moisture deficit is sufficiently high during the night (at least 2.5 gr/m³). Later in the day (from around 15.00 hrs) implement measures to increase the moisture and CO₂ content in the greenhouse again, but do not let the temperature in the greenhouse exceed 25-26 °C. Kaite grows very well under diffuse glass coating. In extreme cases (>800W/cm²) the screens can also be partially closed.

Cultivation in autumn

Autumn is precisely the time of year when Kaite can make a huge difference for growers in terms of quality. The percentage of class II will stay relatively low, provided the crop is properly cared for and in good condition. During this period, the number of fruits on the plant often increases, while the radiation in North West Europe quickly declines from week 34. This will not usually rise above 14,000J/cm²/week. Any coating on the roof of the greenhouse should therefore be removed. Growers can keep any fruits that have set on the lateral stems. They are usually good quality with Kaite, but they could be slightly smaller.

Activity is the most important consideration to maintain healthy crops and hence fruit quality. Light is also important in this respect, so make sure the greenhouse roof is clean after mid-August, to enable maximum light transmission. In this period, the heating pipes are not close to the fruits and the heads of the plants, so start heating in time to reach the daytime temperature an hour before sunrise, preferably with a high maximum pipe temperature (>60C). Reduce this heating time if necessary if you want economise on energy costs. Use the screen sparingly to save energy. The moisture deficit should preferably not drop below 2.5 g/kg.

It is very important to pay close attention to irrigation as crops are sometimes given too much water during this period. Ensure a water content drop of at least 8% at night and don't start irrigating until the graph indicates that the plants have started to absorb water. The low position of the sun means that it is more difficult for light to penetrate into the greenhouse, so set the first session at a higher measured radiation (approx. 100J/cm²). Increase the daytime irrigation sessions from 80-100cc in summer to 130-150cc in autumn. Ask your substrate supplier for specific details about their product.

Kaite



Average fruit weight



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