

QUEST Crop report – Week#14

April 3rd, 2002

The first sunny days, of 1600 Joules or more, are behind us. During the first few sunny days the nights were still cool, but now they have become milder. This means good growing weather for the next period. Crops that had some difficulty can recover now. For Quest this means that we should keep it generative. It also means that we are entering a difficult period: breaking of heads because they grow away from the string more.

How do we minimize breaking of heads?

- Don't start clipping too early. Allow the plant to start transpiring first so that the turgor will be lower. This means that you can start at 10.00 hrs.
- Clip every week or alternate with a tie. Possibly you may wait 10 days but certainly not longer. If you wait too long, the heads will be too far from the string and have to be bent back too much. Right away, they are growing the wrong way for the next time. It will take longer and you become pressed for time. In other words, the priority from now on is clipping. Previously it was deleafing.
- Clip between 2 leaves.
- Preferably clip when sunny. Transpiring plants have lower turgor and don't break as easily.
- Growers who maintained lower temperatures and have heavier plants can expect more breakage. These should clip every week.

For those who still have too many leaves on the plants: Watch out!

Do not remove these leaves all at once. It is better to remove 3 – 4 leaves each week than 6 leaves at one time. In the latter case, the water balance in the plants is disturbed and there is a good chance of leaf necrosis. The remaining leaves developed during a low light period and the cells are weaker.

How to avoid BER?

- Prevent or minimize breakage. The cluster after a break will be more sensitive to BER when the weather turns sunny suddenly.
- The more leaves on the plant, the more sensitive they are to BER.
- Maintaining temperature too long is not good. Let the pipe temperature go down in time. If the sun shines directly on the rows, the pipe temperature can be taken out earlier. It does not feel as 'fresh' in those rows. In the other situation, the plants shade the rows and we can feel the cooling effect of the plants.
- Make sure that the pH control is stable:
 - Use water with a stable pH, add for instance tap water or water with a higher carbonate content. This will stabilize the pH because of the buffering action of the carbonates.
 - Avoid a high pH because this impedes Ca translocation.
 - Switch to liquid calcium nitrate.
- Maintain the proper nutrient level. Especially the following elements are important:

- P for Ca transport in the plant.
- Keep Ca a little higher than Mg. These two compete.
- Even when K is low, still maintain Ca at the proper level.
- Using Cl in the form of KCl or CaCl₂ has a positive effect.