

Lettuce

Lettuce in Jiffy 7C Case Study

Customer

The customer is a large scale South African producer of lettuce, growing in both hydroponic systems and in the soil. Challenges arose with cost of seedlings, ease of seeding, germination rates, transplant mortality, growth rates, growing medium clogging up the hydroponic system and water supply and retention in the hottest months.



Trial period

Trials were conducted using a range of Jiffy 7C pellet sizes, from the 40mm to the 20mm pellet and a good result was obtained using the 30mm pellet. This gave an optimum size of pellet that was cost effective, provided room for seedling growth to a good size and provided stability when transplanted into the system. (Ongoing trials are being conducted with pellet size, particularly for the colder winter months where a larger pellet may prove to be beneficial in buffering against the cold).

The following benefits were noticed:

- Easier seeding, allowing the seeding process to be brought in house, resulting in more control and cost effectiveness;
- Better germination rates, and faster germination allowing the growing cycle to be reduced in time by up to a week in warmer months;
- The Jiffy tray system allowed for easy transportation of seedlings and because the pellet is encapsulated in a fine netting, the whole pellet is easily lifted out of the tray with the seedling and placed in the hydroponic system. This means less transplant shock and hugely reduced transplant mortality;
- The shape and flat base of the pellet mean good stability in the system and easy access for the roots to the nutrient stream;
- The netting and the coarse nature of the coco peat prevent the growing medium from being washed into the nutrient stream and then clogging up the system. This resulted in far fewer non-productive days of cleaning the system;

- Exceptional root development and the good water retention qualities of the Jiffy 7C mean the plants are better equipped to deal with the hottest months of the year;

Conclusion

Significant benefits as described above have been recorded when using the Jiffy 7C pellet. In general, growers remarked on the relative ease with which the Jiffy 7C pellets could be deployed.

More trials are being conducted and the size of pellet may need to be varied between winter and summer to get optimal results (larger in winter and smaller in summer). In addition, Jiffy are working toward developing a tray that is more durable (thicker plastic).