



### Sampling Checks

With the wet season which all of the crops have endured, it is important to make regular checks as the crops come towards maturity. We are already starting to see root quality issues developing linked to recent weather conditions that not normally associated with organic production, at this time of year.

Sampling of crops should be done carefully and repeated every 14 days from 20mm up to harvest.

A representative sample should be made for each field of at least 50 roots/ha. Ideally samples from the field should be labelled to identify the part of the field from where they were taken, so as to isolate problem areas. Samples should then be washed clean and inspected in good light; this is best done outside on a bright day. A record of all defects should be made.

An Example of Cavity Spot

Potential problems to watch out for include: Cavity Spot, bacterial rots, and browning of root hairs and tips.

The cavity spot being picked up at the moment is most likely a result of the prolonged soil wetness, which would have caused high infection risk in some soils. Subsequently the recent warm soil temperatures will have been very favourable for disease development on the roots, and would explain why lesion symptoms are now being expressed.

Be aware that the cavity spot can increase rapidly in the crops from low to high levels in a relatively short space of time when conditions are warm, so be prepared to re-sample where there is cause for concern.

If you do suspect any root quality issues then contact Colin or David at Plantsystems ASAP, to see what can be implemented to minimise crop loss.

### Boron requirements in late season carrots

Carrots are particularly susceptible to lack of boron which shows as a dark shadow to the roots, making them unmarketable. If your production sites are susceptible to boron deficiency then crops of carrots and parsnips should have a foliar tissue analysis taken to establish whether any additional treatment is required.



If a tissue analysis showing boron levels of 29ppm or less in the foliage should be taken as a signal to apply Solubor (20% boron) at 5kg/ha. This may need to be repeated depending on soil and leaf nutrient levels. Most plant laboratories should be able to carry out foliar analysis, if you have any problems we can arrange for an analysis to be carried out.

An Example of Boron Deficiency