

Bruising risk assessment advice sheet - 13

Temperature

Lower tuber and soil temperatures experienced when harvesting early in the morning or late in the season increase bruising susceptibility. The BPC 'Research Review - Potato Agronomy' recommends that tubers should be above 10°C before harvesting begins. In many regions where minimum daily temperatures are lower, harvesting when tubers are above this recommended temperature is often limited to early season only. Later in the season consider delaying harvesting until temperatures have risen.

Research has shown that temperatures affect the physical properties of the tuber. Work in the United States shows tubers will bruise more easily with less impact at lower temperatures due to 'failure' of tuber tissue.

Soil temperatures in individual fields may vary and can be influenced by soil type, soil moisture, aspect and localised environmental factors. Soil temperatures in specific fields are important considerations in prioritising fields for harvest.

It is important that soil or tuber temperature is used as a guide and not ambient air temperature!

ACTION

- Preferably harvest crops when soil and tuber temperatures are above 10°C
- Later in the season when night time temperature begins to fall, delay harvesting until later in the day when temperatures have risen

BPC National Bruising Survey

92% of respondents thought temperature at harvest had a moderate or greater influence on bruising. 38% said they would consider delaying harvesting until later in the day to allow soil temperatures to rise, if shown proof that it could make a real difference to minimising crop bruising.

For further information on soil and tuber temperature at harvest, see the BPC Research Review - Potato Agronomy, or telephone BPC Publications on 01865 782222.

Potatoes are more likely to bruise.....

.....when harvested at low temperatures during early morning or harvesting late in the season.

Potatoes are less likely to bruise.....

.....when harvested at higher temperatures, greater than 10°C.