



Soil moisture at burn-off

In the BPC funded BRUCE study, soil moisture at burn-off showed a consistent correlation with tuber susceptibility to bruising. Dry soils were also associated with greater susceptibility. These results support speculation about the water status of tubers around the time of haulm destruction having an influence over bruising levels. Tubers in dry soils could be dehydrated and hence more susceptible to bruising.

Further BPC funded work examining the effects of soil moisture at haulm destruction with that of bruising levels at harvest is being carried out on crops in 2004. The project will determine if a grower has any control on the sensitivity to bruising at harvest through manipulation of soil moisture. The findings of the project should allow guidance on crop management at burn-off.

BRUCE study - how soil moisture at burn-off affects Maris Piper

Soil moisture conditions at burning off	<35% bruised	>35% bruised	Total
Dry	0	8	8
Moist	6	3	9
Wet	3	3	6
Very wet	1	0	1
Total	10	14	24

BRUCE study: Tubers were hand lifted and then subjected to a standard impact. Bruise susceptibility was then correlated with crop history data. The point of separation (e.g. 35% bruised) was chosen to show the biggest difference between treatments. In this case, more crops are bruised where soil moisture at burn-off was lower than under other conditions.

Results from the BRUCE study suggest growers should avoid dry soil conditions at burn-off.

For further information on the BPC funded BRUCE project, BPC ref. 807/227, Bruising sensitivity at harvest, BPC ref. 525 and Management of tuber water status to reduce bruising, BPC ref. R263 see www.potato.org.uk or telephone BPC Publications on 01865 782222

BPC National Bruising Survey

33% of respondents recognised soil moisture at burn-off as having a major or very major influence on bruising. Furthermore, 38% said they would consider irrigating just prior to burn-off to raise soil moisture levels in a dry season if shown proof that it could make a real difference.

ACTION

- Monitor soil moisture prior to burn-off
- At burn-off, make an assessment as to whether soils are wet/moist/dry. If soils are dry at harvest treat with extra caution
- Register your interest to receive results of BPC funded research on bruising sensitivity at harvest

Potatoes are more likely to bruise.....

.....when soils are dry at burn-off.

Potatoes are less likely to bruise.....

.....when soils are moist at burn-off.