

2.6. TIME OF HARVESTING 1979

NAS 512 ML
4th yearSUMMARY

Root yield increased throughout the season, but only slightly after the 22 November. Sugar yield followed the same pattern and exceeded 10 tonnes/ha by mid-November. Sugar content remained virtually steady at over 17% throughout the season. Yield of tops declined gradually after a peak at the end of September but the rate of decline became more apparent in mid-December.

OBJECT

To monitor the development of the beet crop from mid-September to mid-December by taking fortnightly samples of roots, tops and sugar assessment.

TREATMENTS

Fortnightly samples of washed roots, fresh tops and sugar percentage, beginning on 13 September and ending on 20 December.

METHOD

Four samples of 20m² were hand harvested at fortnightly intervals from a uniform crop of Nono over the period 13 September to 20 December. The crop had been drilled to a stand on 18 April at 19 cm spacing.

RESULTS

Below average temperatures in May prevented the crop from making good initial growth and final plant populations were marginally lower than the target of 75 000/ha. A mean of 68 000 plants per hectare was achieved at harvest, and this varied from 65 000 to 70 000.

A very wet and cool March was followed by a wet April with average temperatures and near average sunshine. May was very wet and cool but June had normal temperatures and rainfall. July and August were duller and cooler than normal, but July was very dry. A very dry and extremely sunny September with normal temperatures gave way to a mild and sunny October with above average rainfall. November was cooler and drier than normal but the first half of December was particularly mild with a complete absence of frosts. Rainfall was much above normal but the month was also very sunny.

*NOT FOR PUBLICATION WITHOUT THE DIRECTOR'S CONSENT. This report deals primarily with only one year's work so any conclusions given are only provisional

Root yield increased steadily throughout the season but the yield increase after 22 November was only slight. The highest yield of 62.5 tonnes/ha in mid-December exceeded the peak of 59.5 tonnes/ha achieved in 1978. It is probable that this was the peak for 1979 and was achieved so late in the season because of the mild weather in the first half of December.

Sugar content remained virtually steady at just above 17% throughout the season with only slight fluctuations.

Sugar yield followed the same pattern as root yield. The yield exceeded 10 tonnes/ha in mid-November and gradually reached a level of 10.8 tonnes/ha at the final lift.

The mean sugar yield increases were 104 kg/ha/day in September and 66 kg/ha/day in early October. The yield increase then varied between 24 and 34 kg/ha/day until early December and then declined to only 3 kg/ha/day by the final harvest. The overall yield increase throughout the season was 42 kg/ha/day.

Yield of tops peaked at the end of September and then declined gradually to early December. The rate of decline became more apparent at the final harvest on the 17 December.

HARVEST DATE	1979			
	Root yield tonne/ha	Sugar content %	Sugar yield tonne/ha	Wt. of tops tonne/ha
	(±1.223)	(±0.104)	(±0.22)	(±1.73)
13 September	39.58	17.25	6.8	40.5
27 September	47.02	17.60	8.3	43.6
11 October	53.31	17.26	9.2	41.1
25 October	54.81	17.51	9.6	37.8
8 November	57.34	17.32	9.9	33.1
22 November	60.71	17.15	10.4	35.4
6 December	61.89	17.36	10.7	33.2
20 December	62.49	17.25	10.8	27.3
Standard error %	4.5%	1.2%	4.6%	9.5%

MONTH	1979		
	Rainfall(mm)	Sunshine(hrs)	Mean temp(°C)
January	56.8	54.1	-1.3
February	69.0	44.8	1.2
March	86.1	92.8	4.4
April	56.1	140.0	7.5
May	80.5	196.8	10.7
June	38.8	196.5	14.1
July	12.7	186.2	15.7
August	66.8	176.3	15.4
September	20.5	192.0	13.7
October	53.8	117.7	11.3
November	52.9	70.1	5.8
December	93.3	66.0	5.4

SUGAR YIELD t/ha 1976-1979

