



Back to school: Gauging the effect of liquid seaweed on Kipfler potatoes

TASMANIAN RESEARCHER DR MIKE WALKER RECENTLY INITIATED A STUDENT TRIAL TO EXAMINE THE EFFECT OF LIQUID SEAWEED ON THE YIELD AND TUBER SIZE OF KIPFLER POTATOES. *POTATOES AUSTRALIA* SHARES THE FINDINGS.

The Kipfler variety of potato is notorious for producing many tubers, few of which are of marketable size.

Previous trials using Ectol, a liquid seaweed-based product, have shown that when it is applied after tuber initiation, it results in more marketable tubers with less size variation (see the article “Reducing variation in tuber weight with liquid seaweed” published in *Potatoes Australia* August/September 2015).

A trial was therefore conducted on Kipfler potatoes at Ulverstone High School in Tasmania as part of an industry school partnership with Farmers Marketing Network Pty Ltd,

which produces Ectol, using a class of 25 students as field technicians. Tasmanian researcher Dr Mike Walker coordinated the trial.

Project overview

The trial area comprised a grid of 25 one square metre plots (set out as five by five) with one plot for each student. They each planted four seed tubers in their plot and monitored the progress, weeding as necessary.

Each row of five comprised untreated controls at each end (plots one and five), with one in the middle (plot three).

This left plots two and four for the liquid seaweed treatment, which Dr Walker applied. After

tuber initiation, he added a litre of a 1:100 dilution of Ectol to each of the plots using a watering can at four weekly intervals, with the last applied a week before harvest.

The students did the harvest and Dr Walker stressed the importance of harvesting all tubers, no matter how small.

Main findings

The five blocks were labelled A to E and 1 to 5 in each block. As blocks A and E were effectively “guards”, Dr Walker concentrated on C4 and C3 which were in the middle, and weighed each individual tuber in the two samples.

The results are shown in Table 1. It can be seen that:

- The treated tubers weighed in at eight per cent more overall than the control, despite a lower number of tubers (about 28 per cent fewer).
 - The average weight of the treated tubers was 50 per cent higher than the control.
 - There were 60 per cent more tubers above 70g and 45 per cent more above 50g in the treated plots.
 - There were 50 per cent fewer tubers weighing less than 10g.
- Commercially, 45 per cent more tubers above 50g is probably the most significant finding.

Based on this trial, it was concluded that Ectol applied to Kipfler potatoes after tuber initiation produced a significantly greater marketable yield from significantly fewer tubers.

For the record, the students enjoyed the experience, as did the teacher.

Table 1: Results

	Treated tubers (T)	Control tubers (C)	T/C
Total tuber number	76	106	0.75
Number below 10g	19	50	0.38
Total tuber weight (g)	4361	4029	1.08
Average tuber weight (g)	57	38	1.5
Tubers over 70g	2749	1711	1.61
Tubers over 50g	3208	2207	1.45
Tubers below 10g	88	265	0.33



For more information on this project or to obtain the complete data set, please contact Dr Mike Walker at wvpl@activ8.net.au.

