

Case Study - Wayne Edwards, Manjimup

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Summary

Name: Wayne Edwards

Location: Wilgarup, East Manjimup

Perennial Species Sown: Lucerne WL925 at 12 kg/ha

Reason for Species Selection: Highly productive perennial to compliment their system

Soil Type: Deep loam



Fig 1: Wayne Edwards in his organic, irrigated lucerne. Variety WL925, planted June 2007.

Reasons for species selection

Wayne Edwards' main enterprises include biodynamic vegetables, merino, cross-bred and Wiltshire sheep and cattle.

Wayne was looking for a highly productive perennial pasture species that would have a short to medium persistence level (3-4 years) to grow under a centre pivot irrigator in a rotation with vegetable cropping. On his dryland areas he looks to use the more persistent varieties of lucerne which should work well with a longer (6-7 year) rotation with the vegetables.

Pre-sowing preparation

Wayne farms organically so does not use any herbicides or insecticides. He relies on cultivation for most of the weed control. The irrigated area was cultivated about 6 times, with a new germination of weeds targeted each time. The area may have been cultivated a few too many times but the weeds kept coming back. Wayne was concerned that so many cultivations might damage the soil structure.

No pest control was used. About 1 t/ha of lime and 5 t/ha of compost were incorporated during cultivation.

Sowing

The stand was sown 1st June 2007 with a disc combine as shallow as possible and rolled immediately afterwards. Traditional peat inoculants (and some organic additives) were used because pre-treated seed does not fit with the organic farming ethos.

Fertiliser (mainly rock phosphate) was applied prior to sowing, with trace elements and compost.

Some contour drains were put in after sowing and rolling as the site is on a fairly steep slope.

Post-sowing

Weed control was a bit challenging to begin with. There was a considerable amount of wild raddish in the stand. The paddock

was mowed for hay before the seed set with the November warmth. This allowed the light into the lucerne, reducing the competition so the lucerne took off.

The stand has been relatively free of high numbers of insect pests. However there was a noticeable build up of aphids in January this year. Wayne wasn't sure what to do about them because there wasn't much in the organic farming literature about aphid control, but knew from growing vegetables that it had something to do with nitrates and the urine from the stock may be contributing to the nitrate levels in the soil. Hence, he de-stocked the paddock and within a week there were significant levels of ladybeetles and hardly any aphids.

At April's autumn break the stand was mowed off again to get rid of the rank, woody material. It had tillered out very well since then, with the plants looking lush and healthy.

The stand was irrigated throughout the summer from Jan-April. It didn't receive a lot of water, just enough to survive.

Grazing Management

Wayne was very careful not to overgraze the lucerne at the start. It remained ungrazed for the first 6 months. Stock were introduced mid-December and the area only rested for 2 weeks while aphids were evident and 2 weeks at the autumn break.

The lucerne was used to finish off 300 lambs throughout summer and autumn, with a small number sent away each week. There are now 200 lambing ewes, 15 cows with calves at foot and 15 steers in it. They've been in for about a fortnight and are hardly even putting a dent in the lucerne. It is really quite unbelievable how productive it is. (NB: Wayne also feeds hay to the cows so they do not suffer from boat).

