



SCOTTISH EXECUTIVE



PERTSHIRE ORGANIC MONITOR FARM

**Fraser McLaughlan
Balanloan Home Farm
Atholl Estates
Blair Atholl
PITLOCHRY
Perthshire**

Report on meeting held - 10th May 2007

FUTURE EVENTS

Thursday 16th August 2007 – 11.00am – Monitor Farm Meeting at Balanloan

USEFUL CONTACTS

**Peter Lindsay
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Balanloan Monitor Farm Meeting – Thursday 10th May 2007

Top tip – When heavy infestations of dockens are a problem, shallow rotavate in July to take crowns off dockens, harrow every 7 – 10 days to aid desiccation and deep plough in September, sow winter cover forage rye, plough and sow out in spring of the following year as normal.

Introductions

Peter Lindsay opened the meeting by welcoming everyone to Balanloan on behalf of Fraser McLaughlan and his team. SAC's Organic Specialist, David Younie was also introduced to the group of around 35 people. The main aim of the day was to look at problem weeds on the farm and discuss how to control them under an organic farming system.

Fraser gave an overview of Atholl Estates and Balanloan Home Farm for the benefit of those who were not in attendance at the first meeting and an update of what has happened on the farm since the first meeting.

Lambing and calving has been taking place since the last meeting and the weather has made things easier than normal years. Grass has started to grow earlier this year resulting in fitter ewes and reduced amounts of concentrates being fed.

Stop 1 – Reseed with scotch thistles.

Field direct re-seeded in May 2006 which has come up with a lot of scotch thistles in 2007.

The seed mix was an R M Welch general-purpose mixture with white clover. The field was grazed down hard with sheep, ploughed, cultivated and sown out in May. The grass established well but then the thistles appeared. The field is mainly a grazing field as it is fairly steep.

David Younie explained that as the thistles were of the scotch variety that topping them should reduce the numbers considerably. The creeping thistle is more of a problem as they have large tap roots and rhizomes underground which enable them to grow again once topped.

Timing of topping was brought up and David thought that topping twice would remove a large amount of the food reserves and reduce the numbers considerably. The topper should be set as low as possible to enable all the green vegetation to be removed from the thistle. The field we were stood in had quite a lot of grass in it and David suggested increasing the stocking rate to eat the grass down before topping so as not to waste the grass. It was suggested that topping once in July, before flowering

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would be enough to kill the thistles as this is when the food reserves are at the lowest in the thistle. Fraser agreed to increase the stocking rate and graze down the grass, top half of the field at end of May/early June and then top the whole of the field at the usual time in July as a trial to see if topping twice is better than topping once. Hand weeding using a grape or a lazy dog tool was suggested as being a better method of control. David agreed with this but thought that the area of in-bye land might be too much to tackle by hand. However a smaller area of the field will have the thistles removed using a lazy dog tool to see how effective this is. On a smaller farm with low infestations this is a good method of controlling problem weeds.

A suggestion from the group was to re-seed the grass later in July or August when it is still warm enough for the clover to get well established for winter but after the time when thistles germinate. A stale seedbed technique could be used when the ploughed field is harrowed, left to allow the weeds to germinate and harrowed again to pull out the small germinating weeds and left for the sun to desiccate.

David agreed with this suggestion but problems can be the lack of moisture at this time of year to establish the grass. Chickweed could also be more of a problem sowing at this time of year.

Another suggestion was an eco puller from Alvan Blanch which pulls out weeds and collects them in a hopper. Having found the machine on the internet since the meeting the machine has a working width of 1.5m and a ground speed of 5 kph. This machine is not in mainstream production and is still under development. David Younie had seen one working in Holland which was not very effective and was very expensive. However this may be something for the future.

The cattle in the field then moved around us and instigated a discussion on them. There were 30 steers in the field, which had been there for a week, and another 30 were due to join them in a few days time. They weighed 370 – 470 kgs and had gained 0.5 – 0.6 kg/head/day throughout the housing period. The ration was silage, organic oats, dark grains and beet pulp. Around 2 kg/head/day of concentrates was fed.

David Younie suggested that a target stocking rate for organic grazing was 2,000 kg/ha of liveweight animals. At Craibstone this had been as high as 3,000 kg/ha at times.

Fraser explained that most of the cattle are fattened and sold to ABP in Perth. A small number of cattle are marketed directly through Atholl Glens to the public in boxes. These cattle are killed in Dunblane, cut and packed in Highland Drovers in Perth before going to Highland Game in Dundee who pack and dispatch the orders. Orders are placed via the internet with the majority of customers based in London.

We then moved back to the farm stabling for lunch.

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Stop 2 – Arable silage field

After lunch we boarded the trailer again and drove firstly to the arable silage field which had been sown out the week before the meeting. The field was ploughed out of long term ley and sown with a mix of spring barley and peas. 3 kg/ha of red clover was also sown to provide aftermath grazing for fattening lambs on. It may also increase the bulk of the silage and increase the protein content. Last year the rape ran out and the lamb weights were lower than normal. It is hoped to finish a number of the earlier lambs on the aftermath this year. No weed control will be carried out on the arable silage.

The group suggested that a proper grass clover mix should have been undersown so that the field would not need to be ploughed again next year. The wholecrop will be direct cut in August and ensiled in a pit with grass on top to prevent vermin. A number of the group had experienced problems or vermin in wrapped bales of wholecrop silage.

David Younie explained that barley is a better crop to undersow grass with because it is not as efficient as oats at mopping up all the nitrogen and does not shade out the undersown grass as readily as oats. However, when the weed population is high oats are better at competing with the weeds. David also liked to see the first cereal crop after grass to be undersown with a catch crop grass to reduce leaching. This catch crop grass has the added benefit of reducing the weeds in the crop and providing some foggage grazing in the back end.

Stop 3 – Silage fields

We then moved to look at the silage fields which still had lambs grazing in them. The grass sward is at least 15 years old and has quite a population of dandelions. These fields are needing rejuvenated. It had been planned to get the field grazed down hard and half of the field oversown before shutting up for silage. Fraser explained that the lambs never got the grass grazed down hard this year due to the early grass growth and that the oversowing had not been managed. This will now be carried out after the silage is cut with a couple of different grass seed mixes.

Fraser explained that the fields could not be ploughed and reseeded as the grass would not be well enough established for the horse trials in August. Peter Lindsay thought that an experiment could be carried out by ploughing and direct reseeding a couple of acres after the horse trials. This should enable the grass to establish in the autumn and then grow a crop of silage in the spring which would be cut and cleared for the horse trials the following year. In some years there would be the risk of drought in August/September time but this year the ground should have plenty of moisture in it.

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A discussion about compaction arose. It was thought that flat lifts and sub-soilers may not work well in these fields as they are very gravelly, however an aerator may work well and improve the grass performance. Aeration is suitable to remove surface compaction caused by stock rather than machinery compaction caused by carting silage in wet conditions.

The lambs grazing in the field were due to go to MacIntosh Donald in the few weeks following the meeting. Around 200 blackface hogget lambs had been sold at an average price of £52.15 at a carcass weight of 15.7 kg. The price was £3.40/kg but any lambs with teeth through had been reduced to £2.40/kg. These lambs had been wintered on some permanent pasture and moved onto a better clover sward for finishing. Whole oats had been made available in a hopper but only about 1 ton had been used in total. The previous lambs sold fat off the rape in February had sold at £2.75/kg at around 13.5kg totalling £38/head. The rape was running out and it was hard to get the lambs finished at this time of year. In the past the lambs which were overwintered were sold as store for about £20/head. The overwintering has certainly paid off this year. Fraser is concerned that MacIntosh Donald and others will not guarantee such a good price for holding back lambs next year.

Stop 4 – Ewes and twin lambs

We then moved along to look at a field of ewes with twin lambs. Shepherd, George Scott explained that lambing had went well this year manly due to the good weather. The amount of concentrates fed was lower than normal due to the early grass growth. Ewes had been vacinated with Heptavac P and dosed pre-lambing.

Since the meeting the marking has been completed and the results are shown in the table below. For the hill ewes the numbers marked are the lambs which have been found so far. This number will increase as more lambs are found on the hill.

	Ewes to tup	Lambs marked	Marking %
Park ewes	451	636	141%
Hill ewes	906	840	93%
Cast ewes	307	303	99%

This compares with the scanning percentages which we heard about at the pervious meeting.

	Ewes scanned	Yeld	Singles	Twins	Triplets	Scanning %
Park ewes	451	10	157	262	22	166%
Hill ewes	906	43	702	161		113%
Cast ewes	262	28	149	85		122%

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Back at Steading

Once back at the steading David Younie showed us some work which MSc student Mhairi McRae had carried out on docken control. This method is for use in heavy infestations and possibly just in small areas of fields where feed rings have been used etc.

The trial compared

- no cultivations in 2006, topping, then ploughing in spring 2007, spring oats
- topping, then ploughing in September 2006, forage rye winter cover, ploughing spring 2007, spring oats
- shallow rotavating to take off crowns in July, harrowing every 7-10 days before deep ploughing in September, forage rye winter cover, ploughing spring 2007, spring oats
- Shallow rotavating twice in July a few weeks apart, harrowing, deep ploughing in September, forage rye winter cover, ploughing spring 2007, spring oats.

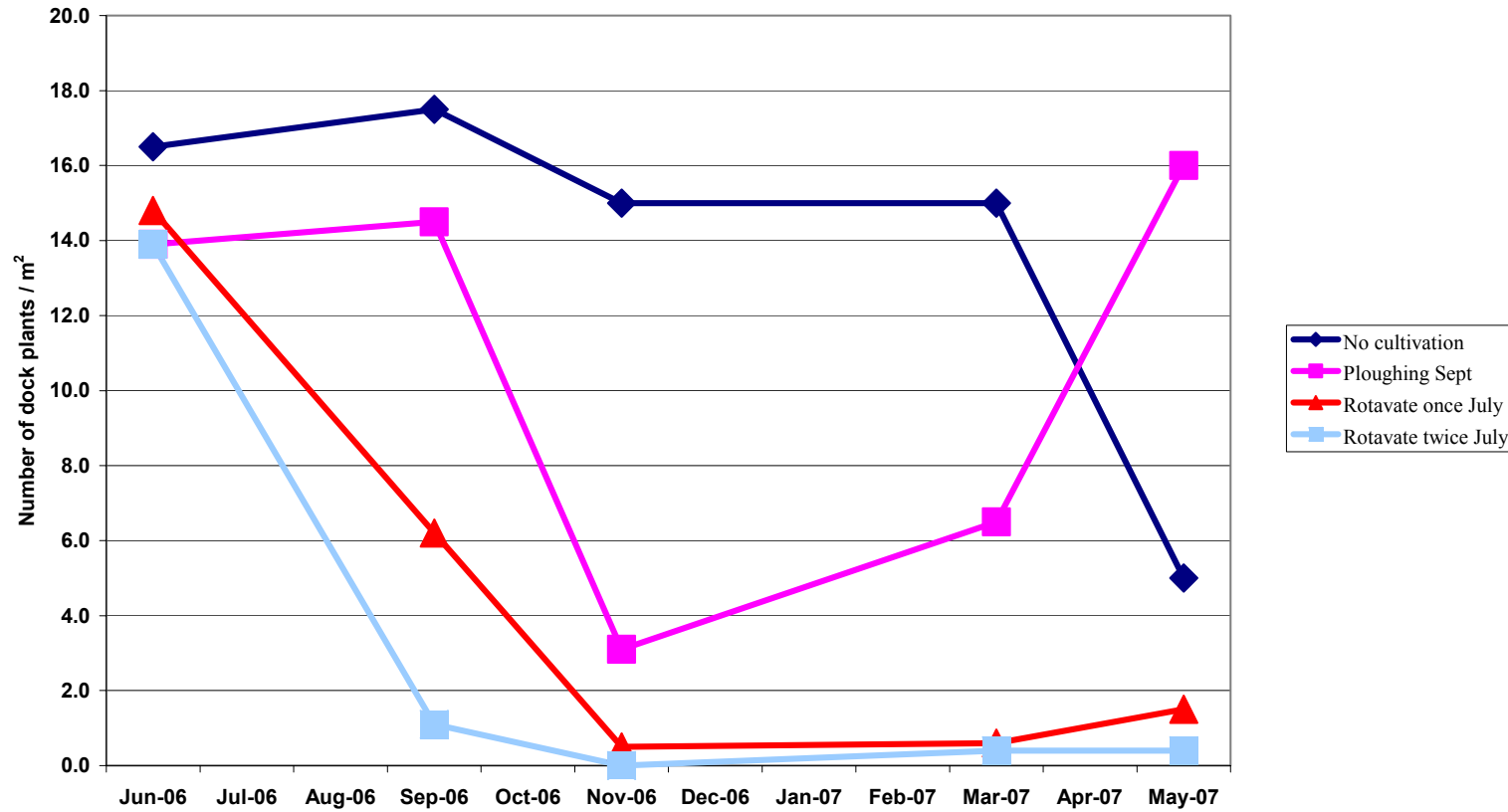
The results showed (Graph on next page) that ploughing reduced the number of docken plants for a short period but the numbers gradually increased to pre-ploughing levels. Both of the rotavating treatments showed very significant reductions in the numbers of dockens which remained low. In fact there was no regeneration from plant fragments on the twice rotavation treatment.

This treatment is expensive in the terms of cultivations and time but is probably the only option in heavy infestations.

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Effect of cultivation treatments on dock populations



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