

Canterbury Commercial Organics Group

Newsletter

Issue No 21: November 2002

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<i>Coming Events</i>	<i>Date</i>
CCOG Field Day	8 Dec
BHU Workshop	23 & 28 Nov
BHU Open Day	10 Dec

The Newsletter is published three times per year by the Canterbury Commercial Organics Group, a non profit charity run by volunteers. Advertisements and submitted articles are most welcome.

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www.organics.org.nz/ccog/ccog.html

Amazing field day coming up –

ORGANIC STRAWBERRY RESEARCH AND WEED TRIALS IN ARABLE CROPS

CCOG is organising a public field day to see the research being done on establishing a commercially viable system for the production of organic strawberry runners. The field day will be on **Sunday December 8, 9.30 – 11.30 am** at Rolleston Prison.

There are several aspects of the organic strawberry runner research – an outside trial to assess final yield (can organically grown strawberries produce a commercial yield?) and a greenhouse trial to assess which multiplication method works best. (See article last issue.) The outside yield trial is also looking at the effect of bokashi and EM (effective microorganisms) treatments.

As well as viewing the strawberry runner project, we will have a farm walk around the prison gardens with horticultural manager, Graeme Williams. The farm produces commercial quantities of organic vegetables and are definitely worth seeing!

Directions: To get to Rolleston Prison from Christchurch, turn right off the Main South Road into Walker Rd. (Signposted to Rolleston Prison.) Go across railway line. Turn left off Walker Rd just after the ropes course. This road bends left then right near the prison units – continue through the prison grounds for about 1 km. The road then forks – take the right hand gravel road up to the horticultural area and meet there.

We will have lunch at the prison (bring a picnic) then go to a farm near Dunsandel, where we will look at weed trials run by Dr Farhad Dastgheib (see article later this issue). The trials are aimed at determining the optimal time for mechanical weed control in broad acre crops of peas and wheat. If you want to go just to the afternoon session, **meet at the farm at 1 pm.** **Directions:** Coming from Christchurch or Rolleston, go south down Highway 1 to Dunsandel, turn right onto the Dunsandel-Hororata Road, then approx. 8 km from Dunsandel turn left into McWhas Rd. The farm is about 800 m down McWhas Rd. Please park on the roadside and we will walk to the trial paddocks.

Date: Sunday 8 December 2002.

Time: 9.30 at Rolleston Prison, or about 1 pm at Dunsandel.

Enquiries: phone Mary Ralston 03 3029202.



Canterbury Organic Update

NOVEMBER 2002

Matt Morris

Canterbury Organic is coming to the end of its first year of funding, and is pleased to say that several growers have been right through the certification process, with about fifty others expressing interest and becoming pod members.

The level of interest in Canterbury Organic was well expressed by the large turnout of our first AGM, held at the Christchurch Environment Centre in September. About 40 people squeezed into the meeting room to hear Ian Ewen Street, MP talk about organics, GE and sustainable agriculture. Ian's talk was provocative, energetic and entertaining and made for a great night. One of the best outcomes of the evening was getting two new committee members, representing the Community Gardens pod and the North Canterbury pod.

As well as these pods, we also have pods in South Canterbury, Banks Peninsula and West Melton, with two individual growers as well.

At the same time, the national programme that Canterbury Organic is a part of (ORGANIC FARM NZ), is a virtually complete package. A national launch for ORGANIC FARM NZ is taking place in Auckland on the 9th November, to be attended by representatives from at least seven of the 11 regions, the Minister of Agriculture Jim Sutton and Co-leader of the Green Party Jeanette Fitzsimons. OFNZ certificates have been created and will shortly be ready for distribution.

As many of you will be aware, OFNZ is currently sitting under the umbrella of the Soil and Health Association of New Zealand. The decision making process is two way between the Soil and Health and seven regional representatives of the scheme making up a National Coordinating Committee. This way the scheme remains producer-driven.

It is also regionally driven, which is why Canterbury Organic will be having its own regional launch in Christchurch. We will be holding our launch at Seven Oaks Campus on Saturday 30th November, starting at 12.30pm. Come along to hear Bob Crowder speaking about organics and the small scale farmer, and Holger Kahl, Soil & Health National Councilor, speaking about

ORGANIC FARM NZ. We will also have more specific information on Canterbury Organic, not to mention some great organic drinks and nibbles, in true Canterbury Organic style!

For more information about this, please feel free to contact me. I am in the office on Thursdays, at 3655038, or you could email me at corganic@organics.org.nz

Tree Crops Field Days

Sunday 24th November: Almond orchard and nursery *Contact person: Bob Winter, 03-312-8298, Start time: 1:30pm*

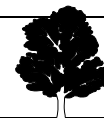
We will visit the property of Brian Saywood in Bells Road, West Melton. Brian grows almonds on the property and also sells almond trees from his nursery. This will make a nice change from the usual "nut" visits. There are also pecans, hazelnuts and walnuts.

New thermal weed control machine

The Vaporjet Thermal Hydrator weed control system has recently been released onto the market. It is manufactured in Hawkes Bay by Vaportec who specialise in the design and manufacture of heat exchangers. They have a patent on the vital spray coil, a key component of the system that puts the water into the column of hot air the machine produces.

Thermal weed control systems are not new; the main principle behind this system is the injection of water to create a vapour. The idea is to break down the green matter of the plant and burn out the root system. As well as weed control it is being trialled to investigate the benefits of heat to control insects and fungal problems in crops. So far it has shown to be useful in the control of slugs.

Letters to the Editor, news items and notices of events are welcome. Please send any newsletter material or feedback to the editor, Mary Ralston, Back Track, RD 12, Rakaia, email kem@xtra.co.nz



Workshop for Organic Growers at BHU

“Starting up in organics”

The next BHU Small Farms Workshop is "Starting Up in Organics". The workshop is Sat Nov 23rd and repeated Thurs Nov 28th, 10am to 4pm (both days).

This will feature theory and practical demonstrations of system design and crop/stock choices to make transition to organics easier and setting up a small farm financially manageable.

Price \$10 per family. Contact BHU on 3253684 for details or email thebhu@quicksilver.net.nz to go on the regular email service for workshop details. Website www.bhu.co.nz.

Tues 10 December: BHU Open Day. Tour of BHU and presentation of research programme and outcomes. 1 pm to 3 pm.

Directions

Enter Lincoln University through Gate 2 (Calder Drive) and take first right up Farm Road, past nursery and cricket grounds, straight through at the intersection into the Horticultural Research Area (Biological Husbandry Unit signposts begin). Follow the road round to the left following the BHU arrow. Park in the areas indicated.



Weed management in organic crops

This project which started in 2001 aims to identify agronomic and physical methods of weed management in wheat and peas. The main objective of the project in the first year was to determine the optimum number and times for mechanical weed control in **wheat** and **pea** crops. This was achieved by field experiments comparing different **tine weeding** treatments. The first year results were demonstrated at field days and also presented in two seminars; one in April 2002 to members of the CCOG group and

the other in October 2002 to a larger group at Lincoln University.

A field trial in winter wheat and three field trials in peas were conducted in 2001 to compare four tine weeding treatments. Effectivity of tine weeding depended upon the weed species and their age. In wheat, pre-emergence tine weeding provided satisfactory weed control for some time, but needed a second tine weeding for the late emerging weeds. In this paddock, weed control by tine weeding treatments did not result in significant increases in wheat growth or grain yield, which may be due to insufficient weed competition.

In peas, late post-emergence tine weeding was significantly less effective in decreasing weed density than the early post-emergence treatment. In two of the three farms, a single tine weeding at early post-emergence was more successful in reducing weed density than two tine weeding operations at pre-emergence and late post-emergence. In general, the greatest increases in yield were observed in the pre-emergence or early post-emergence tine weeding treatments. It is suggested that in many cases one tine weeding at the **optimum time** maybe preferable to several weeding operations.

In the second year, tine weeding treatments are again being compared in wheat and pea crops. More treatment combinations are included to find an optimum time for tine weeding. We will present more results at the end of the season. The wheat trial at Dunsandel will be part of the demonstration in the **Field Day on December 8**. See the announcement in this newsletter for more details.

Dr Farhad Dastgheib, the science manager of the project, welcomes comments and queries about the project or other weed management issues. His contact numbers are: 03-325 2132, Mobile: 021-1549317 (**IWM CONSULTANCY**). The project is jointly funded by AGMARDT, Heinz Watties, and Foundation for Arable Research (FAR). Farhad Dastgheib wishes to thank Philip Rushton, John and Kelvin Hicks, Andrew Brooker, John Christey, Anthony White and Bruce Snowdon (Heinz Wattie's Ltd.) for running the experiments on their farms. Their cooperation and good communication made the task easier. Thanks are also due to Robyn Patchett (CCOG), Nick Pyke (FAR) and Sue Cumberworth (The Agribusiness Group) for their help in facilitating the meetings and field days and administration of the project.



Organic Farming in Denmark

Bo Melander, from the Danish Institute of Agricultural Sciences, recently visited New Zealand and gave a presentation on some aspects of organic farming and research in Denmark.

In Denmark, 6.5% of farms are certified organic. This fairly high figure is the result of subsidies being made available for conversion to organics by the government in the mid 1990s. Most of the conversions were made by dairy farmers who have a low pesticide use, and unlike their New Zealand counterparts, are able to use uncomposted manure as fertiliser. The factors pushing the move to organics, as well as subsidies, were consumer demand and hence a good return for organic products and idealism.

In the European Union (EU) every farmer is paid a subsidy of about \$500/ha for cereals and there is a national payment of c. \$650/ha for converting to organics. Yields for organic compared to conventional wheat are 3.5 t/ha compared to 6.5.

Some examples of organic share of the domestic market are milk 26%, eggs 13%, rolled oats 24%, carrots 13% and wheat flour 10%. Organic meat is still a low percentage (beef 1%); there seems to be customer resistance to paying any more than 20-30% more than the conventional price. The organic milk market is now saturated – 64% of one organic milk company's milk is now sold as conventional.

In Denmark in the mid 1980s there was serious concern at the level of chemicals (particularly pesticides) that were showing up in the ground water. (Ground water is used for drinking water.) The government developed a pesticide policy and action plan with the aims of:

- Reducing the amount of pesticide used by half
- Reducing the treatment frequency by half
- Re-evaluating all pesticides

(The Treatment Frequency Index is the number of times an agricultural area in a rotation can be treated with a full dose chemical. TFI in fruit: apples 20-25; pears 16; cherries 12; blackcurrants 15; strawberries 11.)

Time scale of pesticide action in Denmark

1981-85: Increase in use of pesticides, start of public debate

1986: First Danish pesticide action plan

Since 1993: Findings of pesticides in drinking water
1994: Introduction of prohibition list
1996: Tax increased from 3% to 13% for herbicides and fungicides and 27% for insecticides
1997: Evaluation of pesticide action plan
1998: Tax doubled to 54% on insecticides, 33% on fungicides, herbicides and growth regulators.
1997-99 Bichel committee
2000: 2nd pesticide action plan

Driving forces for stopping use of pesticides

•Pesticides in ground water. The policy is to close wells not to purify water. 5% of public wells have higher concentrations than 0.1 ug/l.

In 1996 new legislation was introduced to control spraying:

- 2 weeks training of all staff applying pesticides (>30,000 have certificate)
- 2 days course for all farmers spraying on own farm
- Obligatory record keeping of all sprayings (1638 checks in 1999)
- Random check on sprayers (247 checks in 1999)

Products prohibited by law:

- Atrazin, cyanazin, trifluralin, hexazinon, dichlorbenil, MCPA, mechlorprop, dichlorprop, 2,4,D, propachlor, isoproturon
- vinclozolin, iprodion, captan, fenarimol, thiabendazole, thiaphanat-methyl, thiram, guazatine, ziram, dazomet, propineb
- diquat, paraquat,
- dichlorvos, deltamethrin, diazinon, lindane, chlorfenvinphos, esfenvalerat

The Bichel committee 1997-99 investigated the consequences of a part and total phasing out of pesticides – looked at the effect on agriculture, the economy and employment, environment, health and legislation, and created the background for a new action plan which aimed to lower TFI and increase the number of no-spray areas, such as near streams etc.

Conclusion

- Action plans have had an impact on farmers' perception on the use of pesticides.
- It was cheap for the farmers to use pesticides beyond an economical optimal.
- Further reductions require considerable changes of common crop practice.
- There is also a need to reduce input of herbicides which requires the use of a combination of cultural practices and mechanical weed control.
- Farmers are positive about becoming a member of "the 2.0 TFI club", that is it is considered a sign of good (conventional) farming practice to only have to spray a crop twice.



Mid winter dinner report

CCOG members and friends enjoyed a entertaining evening at our annual mid-winter dinner at the Ladbrooks hall. The heaters were on, Mark's gluwein was tasty and Tim Jenkins and Jon Manhire continued the tradition of informative and engaging speakers.

Tim began his talk by saying that, as a school pupil, he heard plenty about the impending oil crisis, but had been told nothing about the finite resources that our agricultural economy depended on. Phosphorous in particular is very limited world-wide but our conventional agricultural sectors routinely spread it on as if there were no tomorrow, and in much larger quantities than necessary. Tackling issues such as resource use is at the heart of addressing the sustainability of agriculture, and is a research subject that is being investigated at the BHU, which Tim now runs. Other sustainability questions which must be asked are: can we use our land more efficiently, is soil quality (soil tilth, structure, organic matter levels) improving? These aspects of the sustainability of agriculture are not usually addressed or discussed and contrary to the teachings of conventional agriculture, New Zealand agriculture is very inefficient when you look at the triple bottom line (i.e. environmental, ecological, economic data).

The BHU is addressing such questions by research on model systems with varying levels of inputs. It is also setting up display models of different types of agriculture, such as Japanese Nature Farming. Experimental plots with various levels of treatments have been established.

Tim recounted his first experience of Japanese Nature Farming which was in an intensive chicken raising operation in Thailand. The stench of ammonia should have been overwhelming but there was minimal smell. This had been achieved by using a brew of EM (effective microorganisms) at a cost of a mere \$3 month. There was also improved animal health.

EM in the soil system also has a dramatic effect – in glasshouse trials using EM and bokashi in the potting mix there was a doubling of growth rates in lettuce and radish. EM is distributed through a community-based organisation, rather than a commercial company, which is probably why it hasn't taken off here to any great extent.

Jon Manhire talked about his experiences in Niue as an organic consultant. He was funded by the

Ministry of Foreign Affairs to do a feasibility study on Niue becoming an organic island.

Niue is a small island "in the middle of nowhere", about 600 km from Tonga. It is a raised coral atoll with no beaches and only five or six places where you can get down to the sea. There are about 1800 people living in 12 villages. Niue was settled by Tongans and Samoans about 1000 years ago – the two different ethnic groups live on opposite ends of the island. 70% of the population works for the government which has all the usual government departments. It has tried to develop a tourism industry but has no flights and there is no harbour for boats.

The agriculture on Niue is some of the most traditional Jon has ever seen. There is hardly any soil; the taro and bananas (the main crops) are planted with a crowbar. Various commodities have been tried, such as coconuts and limes. Niue has no rivers or lakes, only groundwater, a fact which has been one of the motivating factors behind the idea to become organic – if any agricultural chemical leached from the "soil" through the coral it could easily contaminate the groundwater.

The traditional agriculture on the island is based on a village with about 200 acres. Crops are rotated over this area over 10-15 years, with about 10 acres being used per year and "slash and burn" techniques used to clear the next area. Taro is the staple crop; over 35 varieties are grown. Feral pigs have changed the pattern of agriculture as has the trend of depopulation in recent years. It was a complex organic system, the people had an intimacy with the land and skills were taught to children. However things changed when television arrived on the island – the people no longer went out to the gardens in the evenings.....

There has been a long standing conservation ethic on Niue; about 10% of the island has been tapu for ever. This may have been instigated to protect the land crabs. Ideas for organic products include honey, which is already being produced, and vanilla, also already grown and a product which requires great patience for hand pollinating. Products need to non-perishable as a boat only comes about every 6 weeks. Niue's government is keen for the island to become 100% organic and BIO-GRO is assisting with certification.

A big thankyou to both Tim and Jon for inspiring talks; we look forward to hearing what happens in Niue and on the research front from the BHU. (Thanks also to Jon for bringing all his family!)



Nature Farming

Interest in and use of EM (effective microorganisms) and bokashi has increased steadily since the successful Nature Farming Soc conference held in Christchurch in January. Mike Daly now works two days per week for the NZNFS setting up trials and promoting its use. The NZNFS is funding some research at the BHU; trials have been established using Nature Farming techniques to recycle crop residues. Comparison will be made between: areas that have had no treatment (control), areas treated with EM, bokashi and plots that have the ingredients of the EM or bokashi brews but without the microorganisms. Experiments adding EM to potting mix growing greenhouse crops have had good results.

Other new areas of EM use are an apple orchard in Central Otago and an organic chicken farm in Gisborne. The orchard has integrated the use of EM into orchard management and demonstrates its use to other farmers. The organic chicken farm is trialling the use of EM in the sheds to try to reduce the mortality of young chicks. There has been some success so far.

The Christchurch City Council is continuing with its use of EM in its composting department and is looking at using it at the landfill to reduce smell. The kitchen bucket system, to reduce the amount of food waste going into the landfill, is going well throughout the city, with over 2000 units in use. Buckets can be purchased at the City Council Service Centres. The council buildings and libraries also use the bokashi buckets to reduce organic waste going into the rubbish.

During the year the NZNFS has run EM workshops at the Seven Oaks Polytech and for Wastebusters in Ashburton. These will continue next year. If anyone would like to trial EM on their farm or garden, or would like to buy some or would like advice on its use, they can contact Mike Daly on email nznfs@paradise.net.nz or phone 03 9422777.

The CCOG Committee (Robyn, Sue, Rex and Mary) wishes all members a happy and relaxing Christmas and New Year!

“Let sheep fight own worms”

(from Farm Review, October 29, 2002)

Good nutrition and natural immunity can do more for fighting parasitic worms than drenches alone, a Waimate meeting heard last week. Dr Betty Hall, who has been studying parasitic worm problems in Australia since the early 1980s, said grazing management and bypass proteins were significant in promoting sheep to fight worms themselves.

This was particularly noted in a “self cure phenomenon” study in NSW, where two flocks were weighed and checked over a 96 day period. Neither flock was drenched. The first flock was well fed, and had their worm count diminish from 3192 eggs per gram to 388. The animals gained an average of 3.6 kg. The second, less well fed flock, had an egg count go from 708 eggs per gram to 2588 and the animals lost an average of 1.02 kg.

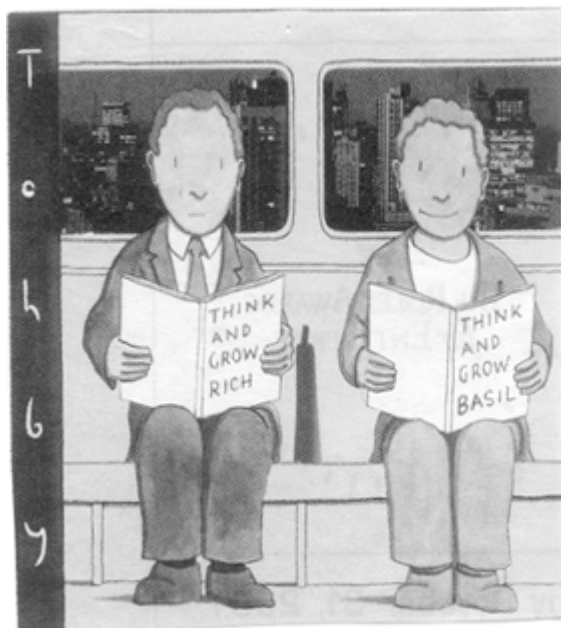
A similar experiment in New Zealand found that feeding casein to young lambs infected with black scour worms enabled the sheep to maintain normal growth rates. Dr Hall noted that the immunity systems of lambs under 6 months old did not recognise worms, so did not respond to vaccines. With exposure, immunity can develop within 10 weeks.

Plants with condensed tannins also helped reduce worm levels and might have an antihelminthic effect.

When sheep were most susceptible they needed to be placed away from worms, Dr Hall said. She recommended sheep be put on clean paddocks just before lambing, when immunity can be compromised by nutrition and lactation. Resistance to worm establishment returns in 6-8 weeks.

Bypass protein was also important, she said, such as black cotton seed, peas, small amounts of lucerne, lupins, and maybe even fish meal. Wormy sheep eat less but actively seek out protein to repair worm damage.

For worm control Dr Hall said: Monitor, monitor, monitor; know what worm types you need to control; understand what makes worm tick; good nutrition – keep sheep fit and healthy; employ some sort of grazing management for susceptible sheep; and if you drench, choose drenches carefully and know the limitations of the drenches.



Organic Discussion Group

The Central Canterbury Organic Growers Technology Transfer Project has had a busy and successful second year. Discussion group meetings at members' properties have continued, with additional members coming on board. Scientists and marketing company representatives also attend. We have tackled a wide range of topics and seasonal issues important to the group members, including weed control, animal health, and the issues arising from the possibility of organics co-existing with genetically modified crops. If anyone is interested in more information or in joining the discussion group, please make contact with Sue Cumberworth (sue@agribusinessgroup.com) or Anthony White (anthony.white@heinz.co.nz).

Advertising

Advertising rates are \$1 a line (8 words a line) up to a quarter page, \$25 per quarter page, \$50 half pg, \$90 page. Enquires to Mary kem@xtra.co.nz

Advertising

Harts Creek Farm Excess Rams for Sale

We are wanting an ongoing association with a grower or growers to buy our older Romney rams (2 -3 rams per year). These rams are a top selection of genetics in the Romney Breed. For more information please phone Tim Chamberlain 03 3243549.

Organic Oasis

Organic Growers Wanted

The Organic Garden City Trust has started a wholesale organic warehouse trading as **Organic Oasis**. We are still in negotiation with another trust regarding sharing premises but have definitely started trading.

We need to increase our supply of certified organic produce. If you are looking for an outlet for your produce, please contact us. We only buy **certified produce** or **produce in transition**.

Grow the produce
Let us do the marketing for you

Our contact details are:
Organic Oasis
Ph: (03) 365-5038, Fax: (03) 379-2270
PO Box 327,
CHRISTCHURCH
Email: organicoasis@organics.org.nz

Grazing wanted on BioGro certified farm for three months over next winter for up to 30 calves / yearling calves and 100 lambs / sheep. Anything considered. Phone Ernst on 03 - 322 7841 or mail to info@HoonHayValley.co.nz.

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For further information and an order form: Email **Mark organics2u@xtra.co.nz**

Or phone **Mark McGrath 344.1647 evenings**

Canterbury Commercial Organics Group - Newsletter

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If any of your details are incorrect please contact Mary at the return address.

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