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Project report submitted to the Organic Farming Research Foundation:

Project Title:

***Livestock management on organic farms:
A survey of issues and farm tested solutions***

FINAL PROJECT REPORT

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Funding provided by OFRF: \$4,125, awarded fall 1997

Project period: 1997-1998

Report submitted: December 1998

Background

The survey was undertaken to obtain information for a publication on organic livestock management. Canadian Organic Growers wanted to base the book on farmers' experience as much as possible, to make sure it addressed the issues being faced by organic producers in Canada as well as providing useful practical information for those who want to convert from a conventional to an organic livestock operation. The main purpose of the survey was to identify the constraints to organic livestock production and the methods used successfully to overcome these problems. We are grateful to the Organic Farming Research Foundation in California for providing \$4100 to fund the project.

Methods

In January 1998 questionnaires were sent to a total of 280 producers in Canada (238) and the northern US states (42) including both certified livestock producers and certified producers who had a non-certified livestock component on their farm. Producers in Quebec were sent both an English and French version. A scale of 1 to 5 was used to rate different constraints or problems with 1 not a concern and 5 being serious. Similarly various management practices were rated as 1 not important or never used to 5 extremely important or method of choice. We also invited producers to elaborate on their responses and to describe key elements of their production systems. See appendix 1 - a copy of the survey questionnaire. Scores were recorded on computer spread sheets from which it was possible to extract numbers of responses for each category.

We also conducted in depth telephone or in-person interviews with selected farmers representing the various types of livestock production and several of these will be documented as case studies in the Livestock Handbook.

Survey Results

The response rate was only 26% or 73 questionnaires returned, with 14 of these from the US, which was a higher rate of return than received from Canadian farmers. Even though sample sizes for each type of enterprise were relatively small, useful information was obtained. A wide range of informative comments were received in response to open ended questions, which we are making good use of in the development of the handbook.

Beef and dairy producers most often reported only one enterprise. Mixed livestock farms most commonly included beef with poultry, pigs or sheep, and sheep with pigs and/or poultry

# of livestock enterprises	1	2	3	4	5	6
# of farms reporting	32	19	9	7	4	2

Dairy. There are more certified organic dairy farms than other certified livestock enterprises in Canada but only 15 dairy farmers responded to the questionnaire; 12 were certified organic. These reasons were given for not certifying: "I can't be self sufficient in feed yet and a back up source is not yet secured"; "quota restrictions are not flexible enough to permit a separate organic marketing strategy".

Dairy - Ongoing organic production

Serious constraint	# producers
Lack of supporting vet	5 (33%)
Lack of processing facility	5 (33%)
Marketing	5 (33%)
Marketing regulations	4 (27%)
Modest constraint	
Feed availability	5 (33%)
Lack of information	5 (33%)
Cost of production	5 (33%)

Excluding one farmer with 1 family cow and a transitional farmer with 600, the herd size ranged from 7 to 120 with the average being 68. Holsteins were the most popular breed - 7 herds, Jersey - 2, mixed or cross bred - 6, with the following breeds represented: Holstein, Dutch belted, Jersey, Brown Swiss, .Guernsey, Canadienne, and Shorthorn suggesting a move to more pasture based systems to reduce the need for grain. Many of the identified constraints that we listed were each considered a concern by at least one producer.

Serious health problems	# of producers
Mastitis	5 (33%)
Moderate health problems	
Milk fever	5 (33%)
Fertility	5 (33%)

Respondents made these comments with regards to health: "Ongoing improvement in housing and feeding takes care of most problems" and "Treating health problems with natural and homeopathic methods is much more time consuming". 87% relied on rotational grazing to prevent parasite problems and 27% often use diatomaceous earth and select breeding animals for resistance. 46% gave a high rating to stimulating immunity to diseases (although no-one mentioned specifically the use of probiotics) and 40% vaccinated. Only 1 producer used antibiotics occasionally and 5 as a last resort. More organic dairy farmers regularly use homeopathic {40%} and herbal remedies (33%) than farmers with other livestock systems.

Beef. We received 39 responses, 20 from certified producers. Herd size ranged from 4 to 340 with an average of 77. Nine different breeds were represented, there was also one Bison herd. Reasons for not certifying included "no or limited market for organic beef", "organic standards too stringent", "no-known alternatives for dealing with lice and pneumonia", and "can make more-money selling grain than feeding it to our cows."

BEEF	# of producers		
	Considering organic	Transition	Ongoing production
Lack of information	10 (26%)	7 (18%)	4 (10%)
Incomplete standards	10 (26%)	8 (20%)	6 (15%)
Feed availability	10 (26%)	7 (18%)	6 (15%)
Marketing	9 (23%)	5 (13%)	14 (36%)
Lack of processing/ slaughter facilities	11 (28%)	9 (23%)	16 (41%)

Considered less serious constraints were herd health and cost of production. Of the health problems external parasites were a serious problem for 3 producers, and less of a problem for 13 (33%); mineral deficiency problems affected 9 producers. Rotational grazing is important for parasite control for 28 (72%) producers. Diatomaceous earth is used often by 13 (33%)

and occasionally by 8 (20%). Vaccinations are used regularly by 14 producers, antibiotics occasionally by 10 and as a last resort by 12. Very few producers use alternative health care methods; one that does wrote "We have used homeopathy with a great deal of success. The first time we used it we had diarrhea in the herd and it cleared up in three days". Homeopathic and herbal remedies are used often by 2 producers and occasionally by 2; probiotics were also mentioned.

Sheep. Only 6 of the 22 flocks were certified with expense, direct marketing, parasite problems and feed availability being cited as reasons for not certifying. Sixteen different breeds were represented, with Dorsets being the most common. Common concerns were the "lack of good alternative health care information" and "unreasonable standards". Health problems were rated a major constraint by two producers with large flocks; internal parasites were rated as a serious problem by 41 % of producers, with 36% using conventional dewormers on a regular basis.

SHEEP		
Major constraint	During transition	Ongoing production
	# of producers	# of producers
Organic feed availability	7 (32%)	8 (36%)
Lack of processing facilities	6 (27%)	8 (36%)
Lack of information	5 (23%)	
Health problems		3 (14%)
Cost of production		3 (14%)

Rotational grazing was used most frequently as a means of parasite control - by 77% of producers, followed by breeding/selection for resistance (46%). Botanical de-wormers were only used regularly by 4 producers (18%), diatomaceous earth by 3 (14%). One farmer "planted a wide variety of herbs in corners of the pasture to provide -self service medication". For problems with diseases, 41% vaccinated against clostridial diseases and 36% relied on colostrum to stimulate immunity, herbal remedies were used occasionally by 32%, antibiotics occasionally by 27% and as a last resort by 41%. Use of homeopathic remedies is uncommon with only 4 producers reporting occasional use.

Poultry

For layers we received 18 -responses, with 8 of those certified organic. Two flocks were reported with over 2000 birds and 10 with less than 100. Of the 20 broilers producers who responded. 6 were certified and production levels range from 50 to 60,000 birds/yr, Giant Cornish most common breed.

Feed availability, quality- and cost seems to be the major reason poultry growers choose not to certify their flocks. "Demand for organic grain outstrips the supply". Other constraints are the quota system and lack of availability of organically raised pullets which means flocks have to go through a 3 or 4 four month transition before eggs can be certified. While certification standards of some organizations make allowances for the limitations of the Canadian climate others are more restrictive causing producers to state "standards stating that birds must have access to the outdoors are unreasonable for those wanting to raise birds year round to meet market demands."

Flock size	# producers
<20	8
20-100	10
>100	4

POULTRY				
Major constraint	Transition		Ongoing Production	
	# producers		# producers	
	Layers	Broilers	Layers	Broilers
Feed availability	5 (28%)	5 (25%)	3 (17%)	7 (35%)
Lack of information	3 (17%)	4 (20%)		1 (5%)
Incomplete standards		3 (15%)		5 (25%)
Cost of production	2 (11%)	3 (15%)		3 (15%)
Flock health	3 (17%)			1 (5%)
Marketing regulations	2 (11%)	2 (10%)	3 (17%)	6 (30%)
Marketing	2 (11%)		3 (17%)	2 (10%)
Lack of processing facility		4 (20%)		7 (35%)
Vermin	3 (17%)	2 (10%)	2 (11%)	5 (25%)
Ration formulation			2 (11%)	2 (10%)

There appear to be few health problems in poultry layer operations although coccidiosis, external parasites and cannibalism were each rated as a serious-concern by one producer. Coccidiosis is a serious problem for 2 broiler producers with cannibalism and leg problems being moderate problems for 5 producers. Access to the outside, increased use of pasture, good air circulation, deep bedding, clean water and balanced rations were all mentioned as key factors for good health. Diatomaceous earth is used regularly for parasite control by 6 producers and for cannibalism one producer suggested hanging a net bag filled with high protein alfalfa/clover hay for birds to peck.

Other livestock enterprises

Eleven farmers, 3 of them certified, raised pigs, and herd size ranged from 6 to 400. The main constraints were the supply of organically raised feeder pigs; lack of a local, certified abattoir and "Consumers are unwilling to pay a premium for organic pork". Internal parasites seemed to be a slight problem for several producers, mineral deficiencies and diarrhoea more serious problems for one farm each.

Information on goats was supplied by 7 farmers but none claimed organic certification. Availability and suitability of organic feed seemed to be the main constraint. Internal parasites, clostridia disease, foot rot, and mineral deficiencies were all serious problems for at least one producer. Three producers relied on conventional dewormers and two on botanicals. A higher proportion of farmers (4) were using herbal remedies for goats than for other livestock but with such a small sample it is difficult to draw any conclusions.

Sources of information

One of the final questions in the survey asked farmers where they get information related to organic production. Dairy and beef farmers were more likely to get their information from other farmers, either directly or through farm tours, whereas sheep farmers were the most likely to get information-from books and magazines. It would appear that very few farmers are using the internet and that consultants and government extension are the least likely sources of information.

Results of this survey indicate that it is the marketing problems (marketing board regulations, lack-of processing facilities, lack of markets, "consumers aren't willing to pay the real price of organic production" etc.) which are perceived as the major constraints to further development of the organic livestock sector. Availability of certified feed is also a significant factor particularly for poultry and dairy operations. As regards husbandry methods, the biggest challenge is dealing with internal parasite problems in sheep flocks, otherwise producers appeared to be confident that health problems were minimal if one followed organic principles.

Most useful sources of information - # of farmers giving high ratings

	Books	Magazine	Other farmers	Workshop	Farm tours	Gov. extension	Private consultant	internet
Dairy	9 (60%)	7 (47%)	13 (87%)	7 (47%)	11 (73%)	2 (13%)	5 (33%)	1 (6%)
Beef	14 (36%)	17 (44%)	26 (66%)	16 (41%)	18 (46%)	2 (5%)	4 (10%)	1 (3%)
Sheep	15 (68%)	13 (59%)	12 (55%)	10 (45%)	8 (36%)	2 (9%)	0	0
Poultry L	11 (61%)	6 (33%)	10 (55%)	5 (27%)	6 (33%)	2 (11%)	1 (6%)	1 (6%)
Poultry B	8 (44%)	5 (28%)	14 (77%)	9 (50%)	6 (33%)	0	4 (22%)	1 (5%)

Preventing health problems - % of producers giving high scores for importance in their management systems.

Enterprise	Nutrition	Pasture access/management	Stress prevention	Housing	Closed flock/herd	Stocking rates
#Dairy	14 (93%)	13 (87%) 10 (66%)	12 (80%)	11 73%	7 (46%)	6 (40%)
#Sheep	20 (95%)	18 (86%) 20 (95%)	17 (81%)	15 (71%)	8 (38%)	15 (71%)
#Beef	35 (89%)	27 (69%) 33 (85%)	27 (69%)	23 (59%)	21 (54%)	23 (77%)
#Poultry	14 (77%)	10 (55%)	10 (55%)	14 (77%)		8 (44%)
Broilers	16 (80%)	11 (55%)	14 (70%)	15 (75%)		12 (60%)

“I think one thing we sometimes forget is the importance of the farmer observing and empathizing with his animals...”

“If enough organic matter provided to the soil and there is enough soil life there to digest it, its all you need A healthy soil will provide for a healthy animal...”

Livestock Management on Organic Farms A Survey of Issues and Farm-Tested Solutions

Instructions: We are using this survey to collect information from farmers who are livestock producers. This information will then be used in the development of an Organic Livestock Handbook. Your input will help to make this handbook a useful resource for farmers interested in organic livestock husbandry.

This survey is not anonymous but your participation is voluntary. We hope to have follow up telephone interviews and/or site visits with selected farmers; please indicate your willingness to receive either a phone call or a visit.

Please address any questions regarding the project to Anne Macey at (250) 537-5511. Thanks for your help in developing the Organic Livestock Handbook.

Farm Name: ----- Producer's Name: -----
 Address: ----- Phone No.: -----

 Type of operation (e.g. Dairy farm): -----

Are you willing to participate in a : Telephone interview? Yes 0 No 0
 Site visit ? Yes 0 No 0

PART 1 GENERAL INFORMATION ABOUT YOUR LIVESTOCK PRODUCTION.
 Please use a separate column for each type of livestock you produce (e.g. meat birds, laying hens, dairy, etc.).

Type of livestock				
Present Size of herd/flock				
Anticipated Size of herd/flock				
Type of Breeds				

Production Levels -----
 (e.g. doz. eggs/mos.)
 Do you keep records of:
 Performance? Yes ___ No ___ Yes ___ No ___ Yes ___ No ___ Yes ___ No ___
 Health Care ? Yes ___ No ___ Yes ___ No ___ Yes ___ No ___ Yes ___ No ___
 Years of experience -----