

Organic dairy farming in Norway in relation to the 'conventionalisation' debate

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Abstract - The new organic farmers may differ from their more established colleagues, which may have implications for the development of the organic farming sector and its distinctiveness vis-à-vis conventional production practices. The aim of this study was to explore organic farmers' characteristics, farming goals and conversion motives, grouped by year of conversion (three groups). A survey was undertaken among organic dairy farmers in Norway. The newcomers (converted in 2000 or later) were younger and less educated than the early entrants who converted in 1995 or earlier. The newcomer herds were fed more concentrates and had higher milk production intensity than the herds of the two earlier converting groups. Newcomers more often mentioned goals related to profit and leisure time. The early entrants were more strongly motivated by food quality and soil fertility/pollution issues than the others, whereas financial reasons were relatively more important among the newcomers. Even though trends towards more pragmatic and business oriented farming were found, the majority of the newcomers were fairly committed.¹

INTRODUCTION

The area of land and number of farms under organic management in Norway has increased rapidly, as in other countries worldwide. Most of the new players contributing to the growth in organic production must necessarily be conventional farmers converting to organics. Along with organic farming's popularity, some researchers have warned that the organic movement may be in danger of losing its identity, with agribusiness involvement and abandoning of the more sustainable agronomic and marketing practices originally associated with organic agriculture (e.g., Guthman, 2004). This argument has been canonised as the 'conventionalisation thesis'.

Padel (2001) concluded that motives for conversion have changed from the earlier philosophical ideals and husbandry reasons towards an increasing focus on environmental and economic concerns, and the perception of organic farming as a professional challenge.

This study aims to provide empirical information about Norwegian organic farmers' personal characteristics, farm practices, farming goals, and motives

for conversion, grouped by year of conversion. The study is restricted to dairy farming.

MATERIALS AND METHODS

Data from organic dairy farmers examined in this paper were collected as part of a larger questionnaire among Norwegian farmers. Data (2002) from the Norwegian Agricultural Authority (SLF), the Norwegian Dairy Herd Recording System and the Norwegian Cattle Health Services were merged with the questionnaire data.

The questionnaire was first sent out in January 2003 to all 245 registered organic dairy farmers. Some 161 (66%) farmers responded.

The questionnaire presented farmers with questions related to: (1) farm and farmer characteristics; (2) farmers' goals and motives for conversion; and (3) livestock disease management strategies, included their use of alternative veterinary medicine.

Farmers were asked to report the year in which the farm's first field(s) was certified as organic. This year was presupposed to be the year of conversion to organic farming. The respondents were categorised into three groups: (1) those who had farmed organically since 1995 or earlier (*early entrants*); (2) those who were certified in the years 1996 to 1999 (*mid entrants*); and (3) those who started farming organically in 2000 or later (*late entrants*, i.e., the new producers).

Mean values obtained in different groups for metric variables were compared by *t*-tests. Chi-square statistics were generated for comparisons of frequencies of categorical data.

RESULTS AND DISCUSSION

Personal characteristics and farm production practices of the three groups are reported in Table 1.

Late entrants were younger ($P < 0.01$) and had less farming experience than the two earlier groups ($P < 0.05$). Early entrants had a higher educational level than the late entrants ($P < 0.05$).

A greater number of the early entrants, compared to the mid and late entrants, cultivated 'other crops' ($P < 0.01$) and kept poultry ($P < 0.01$), however, usually on a very small scale. They also tended to more mixed livestock farming than the later groups. These findings indicate that a substantial part of the early entrants follow the organic ideals of mixed farming and farm household self-sufficiency.

Supply of concentrates per cow was quite similar between the two earliest groups, while the new

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producers' cows were fed with more concentrates ($P<0.05$). The higher concentrate feeding intensity was associated with a higher milk yield per cow. The late entrants' average milk yield of 5398 kg per cow was low compared to the overall average of 6190 kg in Norwegian dairy herds.

Table 1. Mean farmer characteristics and farm practices grouped by year of conversion.

	EC ^a	MC ^a	LC ^a
Number of respondents	45	68	48
<i>Farmer characteristic</i>			
Age of farmer (years)	50.5	48.4	42.8
Farming experience (years)	23.3	24.9	18.7
Univ./coll. educ. (% of farmers)	53.7	38.2	31.3
Agric. education (% of farmers)	82.5	77.9	68.1
<i>Land management</i>			
Farmland (ha)	29.2	28.9	33.0
Other crops (% of farms) ^b	55.6	22.1	22.9
<i>Livestock management</i>			
Number of dairy cows	16.6	16.4	17.4
Milk yield per cow (kg/year)	4830	5073	5398
Concentrates (FUm ^c /cow)	819	836	1006
Other mammals (% of farms) ^d	51.1	36.8	33.3
Poultry (% of farms) ^e	40.0	13.2	12.5
<i>Animal health</i>			
Disease treatments/100 cows	32.7	39.4	53.0
Alt. medicine (% of farmers)	77.5	66.7	43.5

^aEC = conversion in 1995 or earlier, MC = 1996-1999, LC = 2000 or later.

^bPercentage of farmers having 0.2 ha or more of potatoes, vegetables, fruit or berries.

^cOne feed unit milk (FUm) is defined as 6900 kJ of net energy lactation.

^dFarms having at least two other animals (suckler cows, sheep, goats, pigs, horses).

^eFarms having hens, chicken, turkeys, ducks or geese.

The late organic herds showed the highest level of registered disease treatments per cow, mainly related to veterinary visits and medical treatments. A vital question is, however, whether the registered disease treatments actually mirror the true number of diseases in the herd. The farmer's threshold for veterinary treatment of diseases, *inter alia* influenced by the degree of self-initiated non-medical disease handling, affects the resulting treatment rate. Further, alternative treatments are seldom reported to the Cattle Health Services, and the earliest groups had a higher user frequency of alternative medicine than the new producers ($P<0.05$).

From a list of 14 (10) farming goals (motives for conversion), the respondents were asked to select up to five goals (three motives) as most important for them. Table 2 shows the percentage of farmers in the groups rating a selection of the goals and motives as important.

The goals of converters to organic farming have changed over time. Nearly 70% of the late entrants had 'sustainable and environment-friendly farming' as an important goal, while the rate was close to 90% among the early entrants ($P<0.05$). A higher frequency of the late entrants found 'have sufficient leisure time' important. Profit maximisation ranked very low in the early and mid group, while it was mentioned more frequently among the newcomers. Even though goals of profit and leisure time had

become more important, environmental and food quality goals were the most frequently stated goals among the new organic producers, as well.

Table 2. Percentage of farmers rating various goals and motives as important.

	EC	MC	LC
<i>Important farming goals</i>			
Environment-friendly farming	88.9	83.8	68.8
Producing high quality food	80.0	77.9	75.0
Reliable and stable income	51.1	60.3	58.3
Time for family, living quality	62.2	50.0	54.2
Independency, self employment	46.7	47.1	37.5
Work with animals/crops	40.0	30.9	39.6
Improve farm for next generation	28.9	44.1	27.1
Have sufficient leisure time	17.8	17.7	37.5
Maximise profit	6.7	10.3	22.9
<i>Important motives</i>			
Food quality	62.2	45.6	41.7
Professional challenges	33.3	47.1	45.8
Soil fertility, pollution problems	51.1	35.3	27.1
Ideology, philosophy	40.0	35.3	25.0
Health risks (pesticides etc.)	24.4	36.8	33.3
Animal welfare	22.2	32.4	33.3
Profitability	11.1	22.1	37.5
Organic farming payments	6.7	10.3	35.4

Among the early entrants, 'food quality', 'soil fertility, pollution problems' and 'ideology, philosophy' appeared most frequently as motives for conversion, whereas 'professional challenges' and 'food quality' were ranked highest in the later groups. A higher frequency of the late entrants than respondents in the earlier groups mentioned 'profitability' and the 'organic farming payments' as important motives ($P<0.05$). However, the traditional environmental, food quality and philosophical concerns were more widely present as motives for conversion. Our findings are quite similar to previous studies reviewed in Padel (2001).

For further details see Flaten et al. (2006).

CONCLUSION

The new organic dairy farmers did practice farming in a more pragmatic way than the earlier entrants. The intensity in milk production was, however, still rather low. Although the prospects of more profitable farming and the additional organic farming payments have become quite important for a considerable number of the late entrants' decision to go organic, environmental, food quality, and philosophical concerns were still more widely present as goals and motives. If economic terms become harder, the farmers who go organic just for the money may be more likely to return to conventional farming than those committed to broader organic principles.

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