

Structural analysis of the dairy industry and its evolution in Central-Switzerland



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Introduction

Central-Switzerland (C-CH) consists of six cantons; Lucerne (LU), Nidwalden (NW), Obwalden (OW), Schwyz (SZ), Uri (UR) and Zug (ZG). In 2005, 7.9% of the total working population (367306) of C-CH was engaged in the primary sector (agriculture, forestry, fishery), 28% in the secondary sector (industry, handicraft), and 64.1% in the tertiary sector (services). There are significant differences between the cantons.

The aim of this study was to investigate the evolution of the dairy industry from 1996 to 2008 and especially the production costs of dairy farms in C-CH under different geo-economical and political conditions.

Materials and methods

Data on agriculture, dairy farms and factories, milk processing, consumption of cheese and food were taken from FOAG (2010), TSM Treuhand GmbH (2010), Central Switzerland dairy farmers' association (ZMP, 2010), Swiss Milk Producer (SMP, 2009) and GOTTLIEB DUTTWEILER INSTITUTE (GDI, 2008). Full cost accounting data based on the analysis by Höltschi *et. al.* (2009) and full cost accounting was performed according to VOKO-Milch + Schweine by AGRIDEA (2009).

Results

Table 2. Full costs analysis of dairy farms (mean ± SD) in Central-Switzerland

Bookkeeping data from 2005 – 2008 ¹	Valley region			Hill region			Mountain region		
	223 dairy farms			121 dairy farms			56 dairy farms		
Costs and income are per kg milk.									
Direct costs (Cent kg ⁻¹)	-18.8	± 5.4	a*	-18.2	± 5.0	a	-22.4	± 8.3	b
Overhead costs (Cent kg ⁻¹)	-27.8	± 7.6	a	-30.8	± 10.9	b	-40.2	± 15.6	c
Internal overhead costs (Cent kg ⁻¹)	-24.5	± 10.6	a	-32.2	± 13.9	b	-45.8	± 18.8	c
Full costs (Cent kg ⁻¹)	-71.1	± 12.0	a	-81.1	± 16.5	b	-108.4	± 27.8	c
Milk price (Cent kg ⁻¹)	49.5	± 3.6		49	± 4.7		49.7	± 7.9	
Direct payment (Cent kg ⁻¹)	11.6	± 4.0	a	18.4	± 7.8	b	36.3	± 15.2	c
Profit/loss (Cent kg ⁻¹)	-10.0	± 12.2	a	-13.7	± 11.2	b	-22.3	± 16.9	c
Labour income AWUh ⁻¹ (€)	11.2	± 6.3	A	11.1	± 4.8	A	9.3	± 4.3	B
Agriculture income (€)	27636	± 21702		27194	± 20024		22690	± 14000	

¹ Currency translation: 1 Euro = 1.45 CHF. * Different lower-case letters indicate significant differences in mean values: $P < 0.01$ %, different capital letters: $P < 0.05$ %.

Conclusions

In C-CH, the share of full-time farms mainly decreased in mountain regions. Therefore, jobs providing additional income are essential in such fringe areas.

With regard to the high production costs of the dairy farms and the agricultural policy, small to medium sized farms, especially, are under considerable strain, which will increase in the future. The productivity of the dairy farms in all regions must improve due to rising competition.

In mountain regions, cheese factories maintain added value. If cheese factories can be developed, apart from improving their efficiency, they may also generate a higher-than-average milk price through milk-based specialities and the merchandising of these products (e.g. cave-aged Emmental cheese) in the European marketplace. Such a milk price would partially compensate for higher production costs in mountain areas.