

Milk Quality on Organic Dairy Farms

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Appendix 1: Summary of European studies of milk quality on organic dairies.

| AUTHOR | COUNTRY | YEAR | # HERDS | | # COWS | | BULK MILK SCC cells/ml | | CLINICAL MASTITIS | | CONCLUSIONS |
|----------------------|-------------|------|--|---------------|--------------------------|---------|--|------------------------------------|--|--|---|
| | | | ORGANIC | CONVENTIONAL | ORG | CONVEN | ORG | CONVEN | ORG | CONVEN | |
| Weller and Cooper | UK | 1995 | 11 | | | | Year 1:270,700 Year 2:299,000 | | Year 1: .40/CY Year 2: .46/CY | | |
| Busato, et al. | Switzerland | 1997 | 152 | | 1907 | | 86,000 | | | | High prevalence of subclinical mastitis in Alpine dairies; number of mastitis treatments was that of conventional |
| Hamilton, et al. | Sweden | 1998 | 26 | | | | | | .09/CY | .15/CY | No evidence to support that cows in organic herds are more prone to disease |
| Weller and Bowling | UK | 1998 | 10 | National data | | | 250,000 | 167,000 | .35/CY | .37/CY | Clinical mastitis treatment frequency did not differ between organic and conventional herds. |
| Hovi and Roderick | UK | 1999 | 16 | 7 | | | 135,000 | 84,000 | .36/CY (overall) .37/CY (lactation) .28/CY (dry) | .49/CY (overall) .54/CY (lactation) .09/CY (dry) | |
| Toledo, et al. | Sweden | 2000 | 31 | | | | Small: 175,000 Large: 198,000 | Small: 205,000 Large: 186,000 | | | |
| Hardeng and Edge | Norway | 2001 | 31 | 93 | | | 264,000 | 246,000 | lower | higher | Fewer mastitis treatments than conventional |
| Bennedsgaard, et al. | Denmark | 2001 | 29 Old organic (OO) 35 Moderately new organic (MO) 18 newly organic (NO) | 99 | | | 270,000 (OO) 320,000 (MO) 330,000 (NO) | 310,000 | .33/ CY(OO) .50/CY(MO) .46/CY (NO) | .58/CY | The longer a herd is in organic production, the better its cell counts. |
| Nauta, et al. | Netherlands | 2002 | 325 newly organic (NO) 42 old organic (OO) | 966 | 19,107 (NO) 2639 (OO) | 115,058 | (cow samples) 70794 (NO) 2639 (OO) | (cow samples) 63,000 | | | The longer a herd is organic, the higher the somatic cell count score |
| Hoerning, et al. | Germany | 2003 | 74 | - | | | 222,797 | | | | More subclinical mastitis as indicated by higher SCC |
| Ellis, et al. | UK | 2003 | 7 | 7 | | | 205,615 | 191,400 | | | Cow cleanliness was related to bulk milk SCC |
| Roesch, et al. | Switzerland | 2007 | | | | | Visit 1: 52,700 Visit 2:55,300 | Visit 1: 38,000 Visit 2: 47,700 | | | Subclinical mastitis is a greater problem on organic farms but the difference is not marked. |