ASSESSMENT OF HERD HEALTH AND MANAGEMENT ON ORGANIC DAIRY FARMS

Because of the increasing number of certified organic dairy farms and associated milk production, the need for established best organic management practices and overall herd health information is growing. Although several studies have compared organic and conventional dairy management, this is the first large-scale, multistate study to investigate the healthcare practices and wellbeing of organic herds compared to size- and geographically-matched conventional dairy herds in the U.S.[1]

Data from organic, conventional-grazing and conventional-nongrazing dairy herds were collected throughout New York, Wisconsin and Oregon to better understand the management practices of dairy farms on the national level. During each visit, researchers interviewed farmers about herd characteristics, milk production, reproduction, housing, feed, milking procedures, disease and treatment, culling, vaccinations and veterinarian involvement. Herds were scored based on body condition and hygiene, and bulk milk samples were tested for foodborne and environmental pathogens, mastitis infection and milk quality. Comparisons of herd health to management of organic and conventional dairy farms are shown below.

HERD CHARACTERISTICS AND PERFORMANCE		ORG	CON-GR	CON-NG	*P*-VALUE*
Total lactating and dry cows	Small: 20-99 cows	76	75	56	<0.001
(% of farms)	Medium: 100-199 cows	13	11	13	
	Large 200 or more cows	11	14	23	
Prominent breed	≥50% Holstein	63	72	86	<0.001
(% of farms)	≥50% Jersey	10	17	5	
	≥50% Crossbreed/other	27	11	9	
Mean percentage of first-lactation animals		31.6	33.9	37.3	0.002
Mean lactation number		2.6	2.6	2.3	<0.001
Mean milk per cow per day (lbs)		42.9	54.0	61.5	<0.001
Milk composition	Mean protein percentage	3.12	3.19	3.13	--
	Mean fat percentage	3.98	3.92	3.86	--
NUTRITION AND GRAZING		**ORG**	**CON-GR**	**CON-NG**	***P*-VALUE***
Amount of grain fed (lbs/cow/d)		11.4	19.4	19.8	<0.001
Mean number of days grazed (d)		190	182	--	0.041
Mean DMI from pasture: heifers	≤50%	21	33	--	0.058
(% of farms)	51–75%	7	14	--	
	76–100%	72	53	--	
Mean DMI from pasture: adult cows	≤50%	51	69	--	0.003
(% of farms)	51–75%	24	31	--	
	76–100%	25	0	--	
Use of rotational grazing (% of farms)		95	81	--	<0.001
Regular use of a nutritionist (% of farms)		46	89	97	<0.001
PREVENTATIVE MANAGEMENT		**ORG**	**CON-GR**	**CON-NG**	***P*-VALUE***
Routinely scheduled veterinarian visits	No visits (% of farms)	64	44	23	<0.001
(per 100 cows per year)	Few: 0.5 to 7.5	12	11	13	
	Some: 7.6 to 19	17	39	33	
	Many: 20 or more	7	6	31	
Vaccination of adult cows (% of farms)		64	100	97	<0.001
Vaccination of calves (% of farms)		67	100	98	<0.001
Use of DHIA testing services (% of farms)		53	69	70	<0.001
Written records kept of health treatments (% of farms)		79	28	30	<0.001
Replacement stock from outside sources (% of farms)		15	36	36	0.001
MEASURES OF HERD HEALTH		**ORG**	**CON-GR**	**CON-NG**	***P*-VALUE***
Mean reported bulk milk SCC (1000 cells/mL)		221	208	213	0.171
Median reported bulk tank plate loop count (1000 cfu/mL)		4.9	4.2	6.8	0.216
Mean rate of clinical mastitis (cases per 305 lactating days)		0.193	0.284	0.238	0.018
Mean percentage of herd culled		6.4	7.1	10.6	--

**P*-value <0.001 represents statistical significance.

[1] K.E. Stiglbauer, K.M. Cicconi-Hogan, R. Richert, Y.H. Schukken, P.L. Ruegg, and M. Gamroth. 2013. Assessment of herd management on organic and conventional dairy farms in the United States. J. Dairy Sc. 96:1290-1300.