AMS KPI Project - General farm information

October 2015

The Automatic Milking Systems' KPI Project provides the Dairy Industry with key information of what is achievable under commercial conditions. Information about milk production, AMS utilisation and farm demographics will help understand how these farms 'behave' over a 12 month period.

Table 1: General farm information

	Farm 1	Farm 2	Farm 2	Farm 4	Farm 5	Farm 6	Farm 7	Farm 8	Farm 9
Breed of cows	Holstein, Holstein x Jersey, HJx Brown Swiss, Holstein x Brown Swiss, Red Holstein	Holstein	Holstein	Holstein and Brown Swiss (5%)	Holstein	Holstein	Holstein	Friesian x Jersey	Holstein
Calving system	Year round	Seasonal	Split (3 batches)	Year round	Year round	Year round	Split (2 batches)	Seasonal	Seasonal
Milking area (ha)	55	60	100	40	100	75	43	90	50
Type of robots	Single box	Single box	Single box	Single box	Single box	Robotic rotary	Single box	Single box	Single box
Number of robots (#)	3	3	3	3	6	-	3	4	3
Feed stations (#)	0	6	4	0	6	14	3	2	2
Gate time changes	6:00, 13:00 & 20:00	2:00, 9:00 & 16:00 (feedpad 1:00)	2:00, 8:00 & 15:00 (feedpad 23:00)	Barn with free cow traffic	0:00, 10:00 & 16:00	3:00, 10:00 & 19:00	5:00, 13:30 & 20:00	2:30, 10:00 & 17:30	2:30, 10:00 & 16:30

Table 2: Herd information

	Farm 1	Farm 2	Farm 3	Farm 4	Farm 5	Farm 6	Farm 7	Farm 8	Farm 9
Cows in milk (#)	203	226	157	187	327	387	156	182	177
Heifers (%)	39%	7%	34%	36%	13%	35%	18%	31%	27%
Animals that calved (#)	21	42	0	14	19	25	1	1	18
Farm stocking rate (milking cows/ha)	3.7	3.8	1.6	4.7	3.3	5.2	3.6	2.0	3.5
Robot stocking rate (milking cows/robot)	68	75	52	62	55	387	52	46	59
DIM (#)	177	101	246	199	189	208	188	125	188

Table 3: Daily milk production and quality

	Farm 1	Farm 2	Farm 3	Farm 4	Farm 5	Farm 6	Farm 7	Farm 8	Farm 9
Daily milk production (kg/day)	4,524	7,452	4,457	5,679	8,067	8,025	5,301	4,196	5,101
Fat (%)	3.89	3.32	3.7	3.95	4.05	3.95	3.58	4.58	3.55
Protein (%)	3.24	3.08	3.3	3.35	3.4	3.15	3.12	3.39	3.15
Somatic cell count (x 1000)	194	330	146	155	300	257	36	132	150

Table 4: Daily milk information

	Farm 1	Farm 2	Farm 3	Farm 4	Farm 5	Farm 6	Farm 7	Farm 8	Farm 9
Daily milk production herd (kg/cow/day)	20.8	33.6	27.2	31.4	26.0	20.8	33.9	22.1	31.8
Daily milk production cows (kg/cow/day)	23.2	34.7	27.6	32.4	27.2	22.0	35.5	24.7	33.1
Daily milk production heifers (kg/cow/day)	17.1	18.7	26.5	29.6	17.7	18.7	27.0	16.4	28.3
Milking frequency herd (#/cow/day)	2.2	2.3	2.3	2.6	2.1	1.9	3.0	2.7	2.5
Milking frequency cows (#/cow/day)	2.2	2.3	2.2	2.6	2.2	1.8	3.0	2.8	2.4
Milking frequency heifers (#/cow/day)	2.1	1.6	2.4	2.6	1.9	2.0	3.0	2.4	2.8
Concentrate ration (kg/cow/day)	5.8	8.9	7.0	4.7	7.5	10.0	10.5	5.5	9.1
Concentrate intake (kg/cow/day)	5.6	5.5	6.6	4.6	6.0	6.8	9.6	4.9	8.8

Table 5: Milking cow information

	Farm 1	Farm 2	Farm 3	Farm 4	Farm 5	Farm 6	Farm 7	Farm 8	Farm 9
Milk production (kg/cow/milking)	9.6	16.7	12.1	12.1	12.8	11.2	11.4	8.3	12.9
Average time in robot (mm:ss/milking)	5:59	6:37	5:46	6:03	7:32	6:24	5:43	6:42	6:46
Average milk flow (kg milk/min in robot)	1.4	2.2	1.9	2.0	1.6	1.9	2.0	1.1	2.0

Table 6: Robot performance information

	Farm 1	Farm 2	Farm 3	Farm 4	Farm 5	Farm 6	Farm 7	Farm 8	Farm 9
Milking events (number/robot/day)	146	163	124	168	108	715	145	124	140
Milking time (hours/robot/day)	16:37	21:10	14:05	17:38	16:04	10:58	14:34	15:20	15:55
Milk harvested (kg/robot/day)	1,508	2,484	1,486	1,893	1,344	8,025	1,765	1,049	1,700

For updates go to www.dpi.nsw.gov.au/agriculture/livestock/dairy-cattle/robotic-milking-systems

© State of New South Wales through the Department of Industry, Skills and Regional Development, 2015. You may copy, distribute and otherwise freely deal with this publication for any purpose, provided that you attribute the NSW Department of Primary Industries as the owner. Disclaimer: The information contained in this publication is based on knowledge and understanding at the time of writing (November 2015). However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date and to check currency of the information with the appropriate officer of the Department of Primary Industries or the user's independent adviser. Published by the Department of Primary Industries.