

International AMS KPI Project - Average farm information

May 2017

The First International Automatic Milking Systems' KPI Project provides the International Dairy Industry community 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.

A total of 19 farms are being monitored: 12 from Australia, 2 from New Zealand, 4 from Ireland and 1 from Chile.

Table 1: Herd information

	ALL AMS Farms			Australian AMS Farms	New Zealand AMS Farms	Irish AMS Farms	Chilean AMS Farm
	Minimum	Average	Maximum				
Cows in milk (#)	72	190	569	214	164	108	281
Heifers (%)	10%	26%	44%	25%	28%	24%	34%
Animals that calved (#)	0	17	68	21	7	10	27
Farm stocking rate (milking cows/ha)	1.0	2.7	4.2	2.7	1.4	3.3	2.8
Robot stocking rate (milking cows/robot)	36	55	77	51	60	57	70
DIM (#)	89	187	285	203	233	125	157

Table 2: Daily milk production and quality

	ALL AMS Farms			Australian AMS Farms	New Zealand AMS Farms	Irish AMS Farms	Chilean AMS Farm
	Minimum	Average	Maximum				
Daily milk production (kg/day)	1,934	4,018	12,646	4,420	3,506	3,148	3,694
Fat (%)	3.3	4.4	5.1	4.5	4.7	3.9	-
Protein (%)	3.2	3.6	4.0	3.6	4.0	3.5	-
Somatic cell count (x 1000)	41	188	419	209	230	112	-

Table 3: Daily milk information

	ALL AMS Farms			Australian AMS Farms	New Zealand AMS Farms	Irish AMS Farms	Chilean AMS Farm
	Minimum	Average	Maximum				
Daily milk production herd (kg/cow/day)	12.1	22.1	33.5	21.0	18.0	29.3	13.5
Daily milk production cows (kg/cow/day)	13.0	23.5	35.7	22.1	18.8	31.9	16.1
Daily milk production heifers (kg/cow/day)	8.6	17.5	30.6	17.4	15.0	21.2	8.6
Daily milk production heifers: cows (%)	53%	75%	92%	78%	80%	66%	53%
Milking frequency herd (#/cow/day)	1.5	2.1	2.6	2.1	1.5	2.3	1.9
Milking frequency cows (#/cow/day)	1.5	2.1	2.7	2.1	1.6	2.3	2.3
Milking frequency heifers (#/cow/day)	1.2	1.9	2.6	2.0	1.4	2.1	1.3
Concentrate ration (kg/cow/day)	0.4	5.6	8.9	6.8	1.4	4.9	3.1
Concentrate intake (kg/cow/day)	0.2	4.7	7.9	5.8	0.3	3.9	2.9

Table 4: Milking cow information

	ALL AMS Farms			Australian AMS Farms	New Zealand AMS Farms	Irish AMS Farms	Chilean AMS Farm
	Minimum	Average	Maximum				
Milk production (kg/cow/milking)	6.3	10.6	13.9	9.9	11.8	13.0	6.7
Average time in robot (mm:ss/milking)	5:02	6:41	8:25	6:18	6:30	7:48	7:09
Average milk flow (kg milk/min in robot)	0.9	1.6	2.3	1.6	1.8	1.7	1.0

Table 5: Robot performance information

	ALL AMS Farms			Australian AMS Farms	New Zealand AMS Farms	Irish AMS Farms	Chilean AMS Farm
	Minimum	Average	Maximum				
Milking events (number/robot/day)	87	114	141	110	102	127	137
Milking time (hours/robot/day)	9:51	13:57	19:44	12:48	11:54	17:21	17:04
Milk harvested (kg/robot/day)	613	1,209	1,934	1,077	1,220	1,637	923
Incomplete milkings (%)	0%	7%	28%	8%	7%	4%	7%

Table 6: Animal health

	ALL AMS Farms			Australian AMS Farms	New Zealand AMS Farms	Irish AMS Farms	Chilean AMS Farm
	Minimum	Average	Maximum				
Lameness (cases every 100 cows)	0	1	5	1	3	1	-
Mastitis (cases every 100 cows)	0	2	8	3	2	1	-

Figure 1: International AMS KPI Project – Evolution

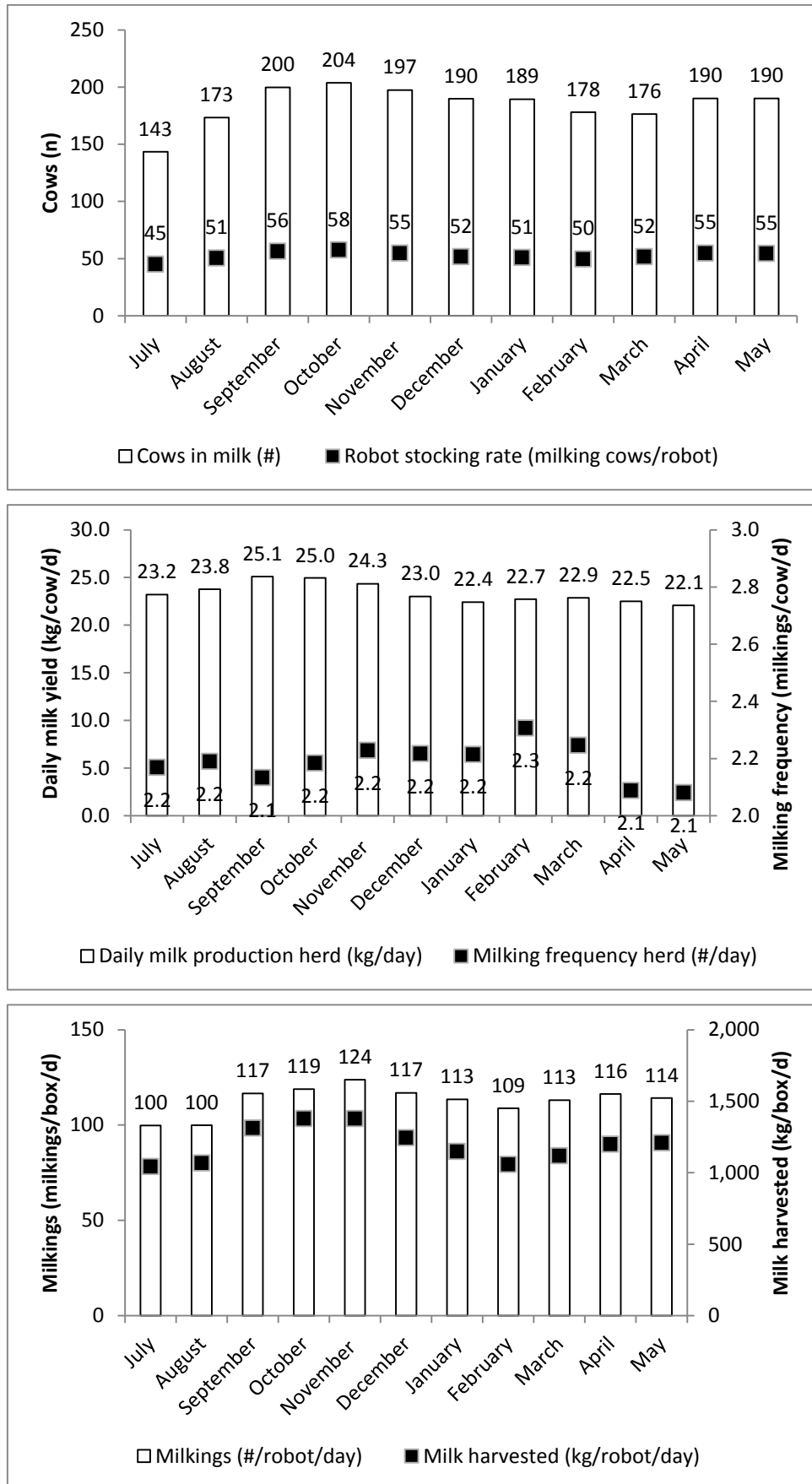


Figure 2: Herd information

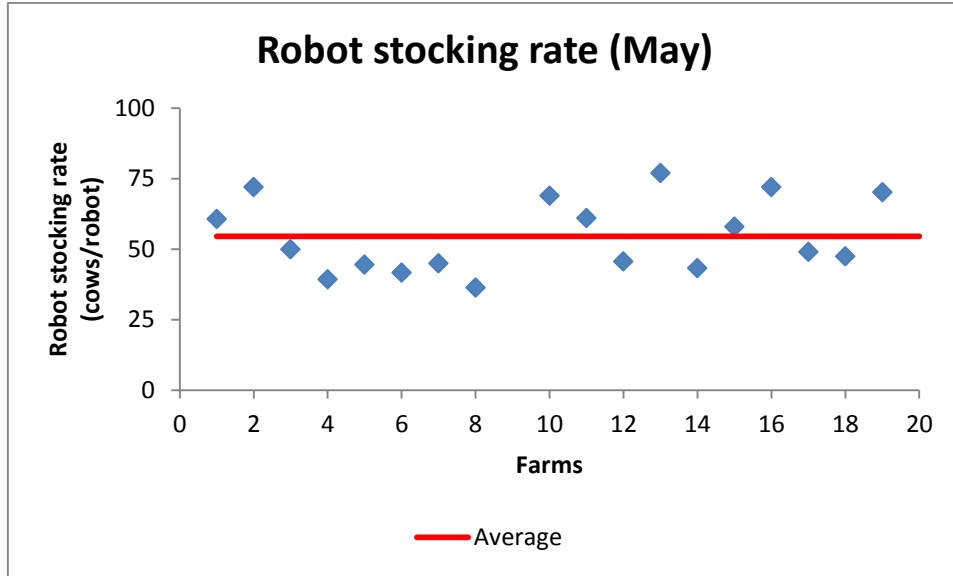


Figure 3: Daily milk information

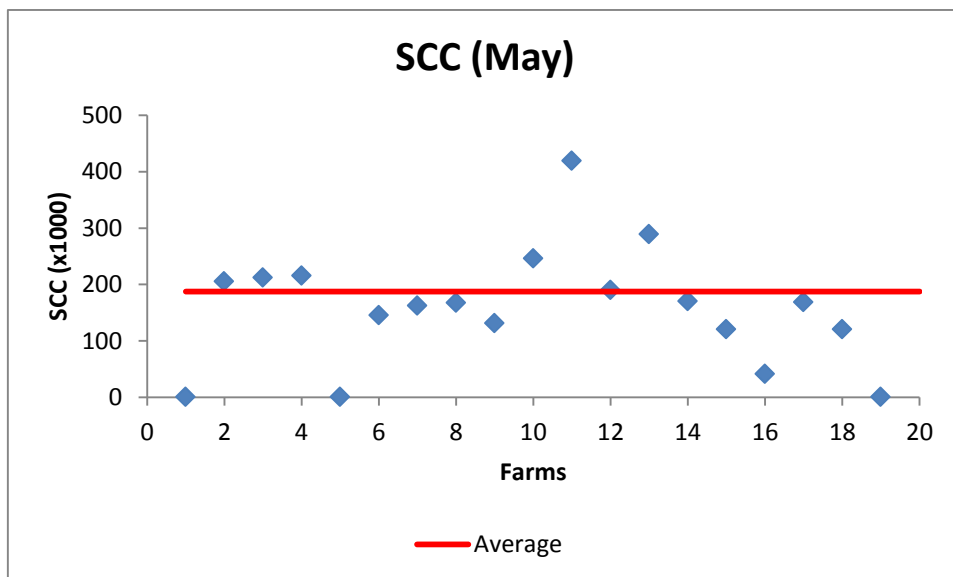
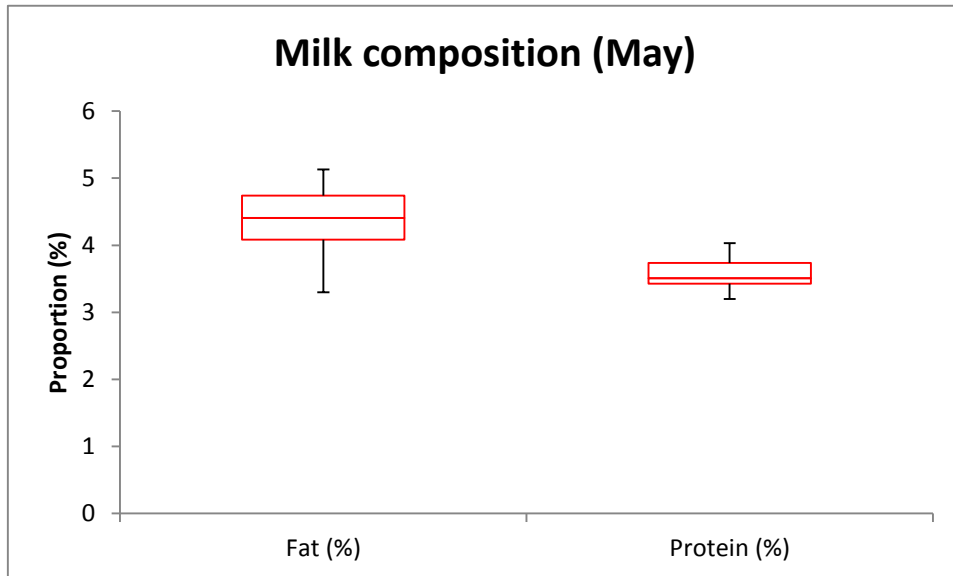
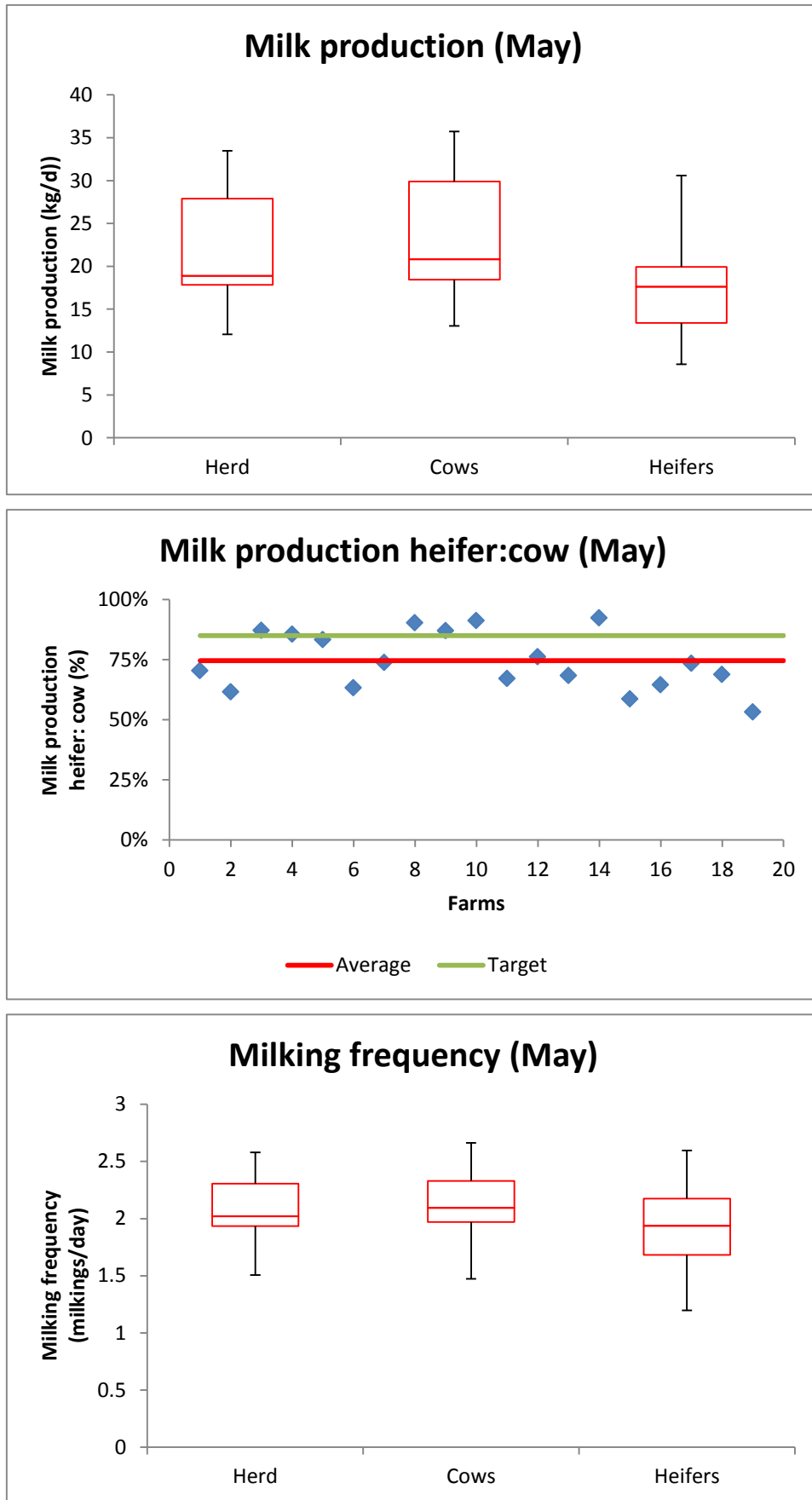


Figure 4: Daily cow information



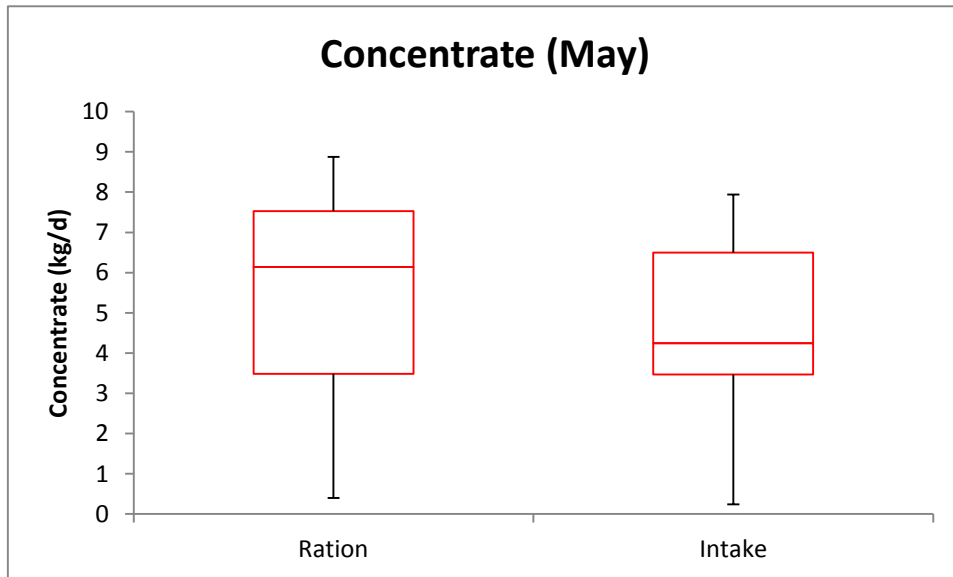
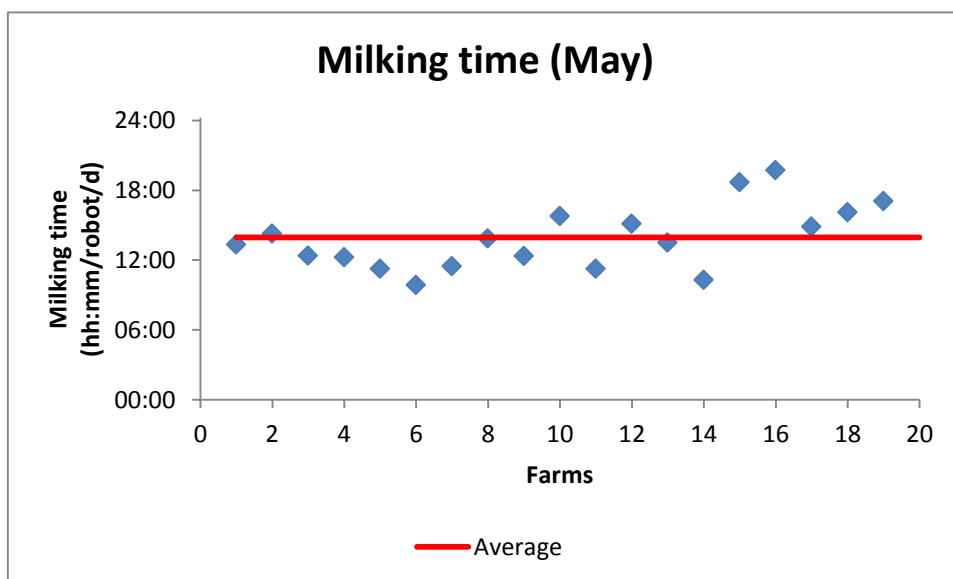
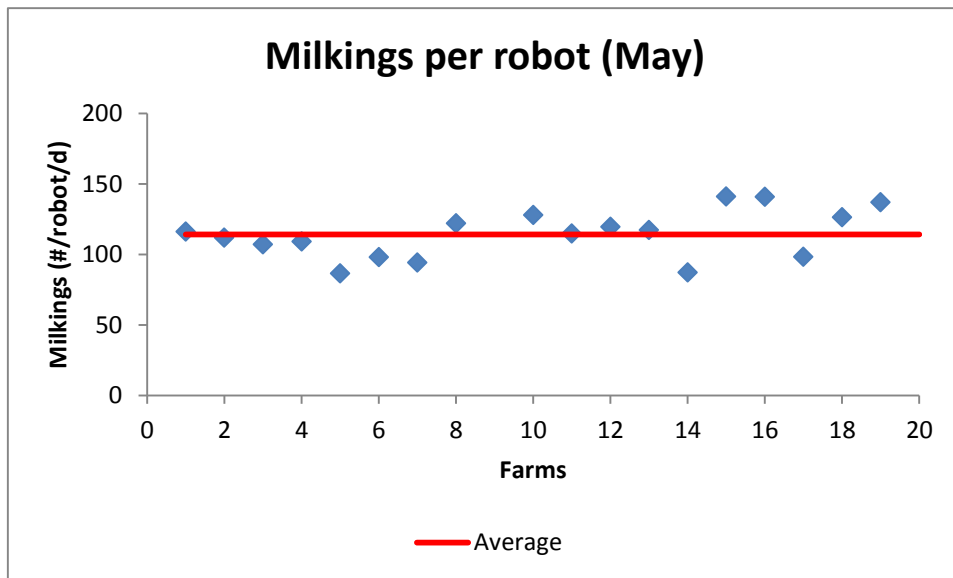
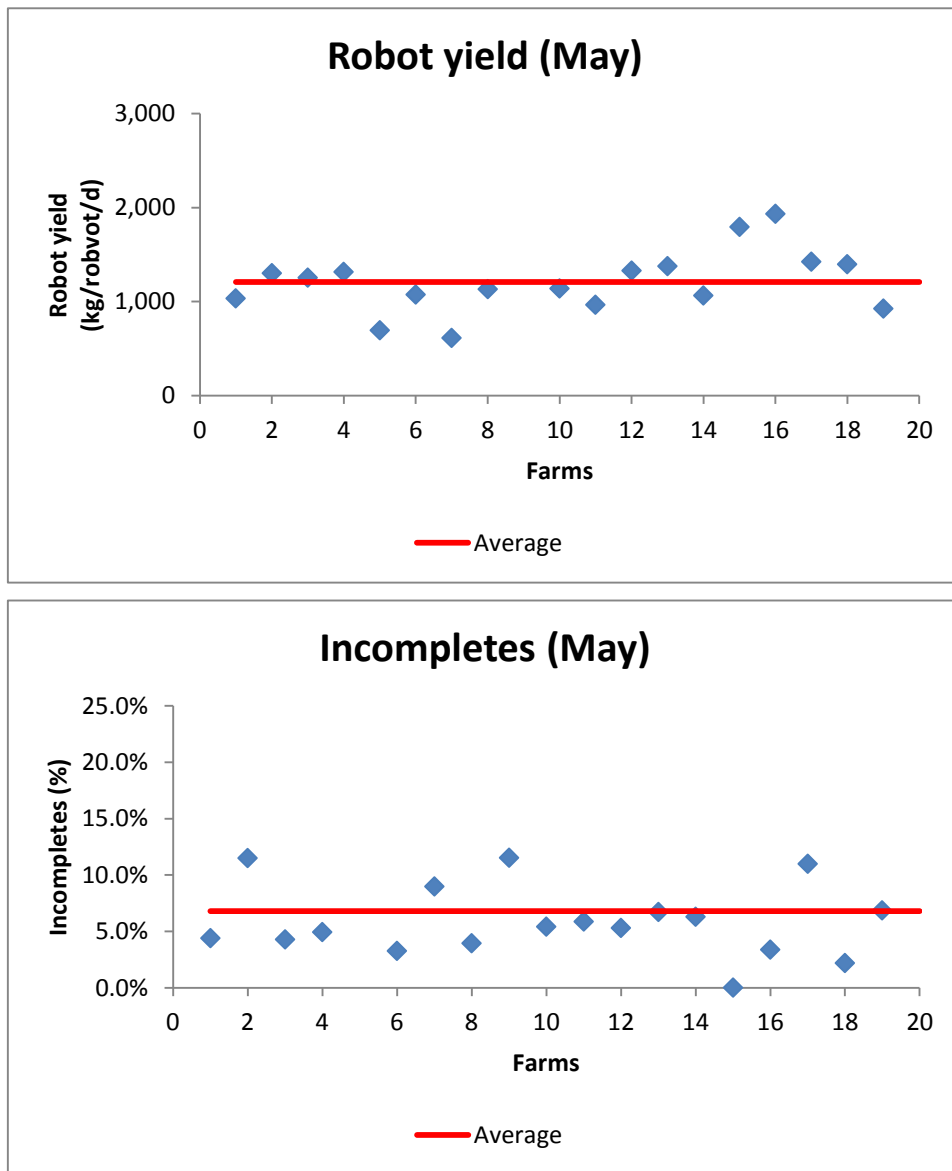


Figure 5: Robot performance





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

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