

International AMS KPI Project - Average farm information

October 2016

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 (#)	58	204	602	233	215	89	287
Heifers (%)	3%	22%	38%	19%	30%	27%	36%
Animals that calved (#)	0	10	27	11	15	2	11
Farm stocking rate (milking cows/ha)	1.6	2.8	4.4	3.1	1.7	2.7	2.9
Robot stocking rate (milking cows/robot)	38	58	80	57	74	47	72
DIM (#)	58	177	271	167	111	238	187

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)	1,257	5,084	19,334	5,991	6,567	1,739	4,622
Fat (%)	3.4	4.1	5.2	3.8	4.3	4.8	4.9
Protein (%)	3.1	3.5	4.0	3.3	3.5	3.8	3.8
Somatic cell count (x 1000)	72	171	354	186	164	142	118

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)	16.4	25.0	36.3	27.0	28.9	19.0	16.5
Daily milk production cows (kg/cow/day)	17.6	26.5	38.9	28.3	31.5	20.5	19.7
Daily milk production heifers (kg/cow/day)	10.8	19.5	30.2	21.3	22.8	14.8	10.8
Daily milk production heifers: cows (%)	55%	73%	89%	75%	72%	72%	55%
Milking frequency herd (#/cow/day)	1.7	2.2	2.9	2.2	1.9	2.1	2.2
Milking frequency cows (#/cow/day)	1.7	2.2	3.0	2.3	1.9	2.2	2.4
Milking frequency heifers (#/cow/day)	1.5	2.0	2.8	2.1	1.7	2.0	1.8
Concentrate ration (kg/cow/day)	0.2	5.7	10.7	7.0	2.4	3.9	3.2
Concentrate intake (kg/cow/day)	0.2	5.0	9.3	6.2	2.2	3.4	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)	7.4	11.5	16.9	12.1	15.4	9.0	7.4
Average time in robot (mm:ss/milking)	5:50	6:53	9:14	6:40	8:31	6:37	7:15
Average milk flow (kg milk/min in robot)	1.1	1.7	2.8	1.8	2.1	1.4	1.1

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)	46	119	160	120	131	102	153
Milking time (hours/robot/day)	6:40	14:50	20:34	14:48	18:44	11:42	19:57
Milk harvested (kg/robot/day)	452	1,378	2,416	1,439	2,075	917	1,155
Incomplete milkings (%)	0%	6%	15%	6%	3%	4%	15%

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	9	1	2	3	-
Mastitis (cases every 100 cows)	0	2	4	2	4	1	2

Figure 1: International AMS KPI Project – Evolution

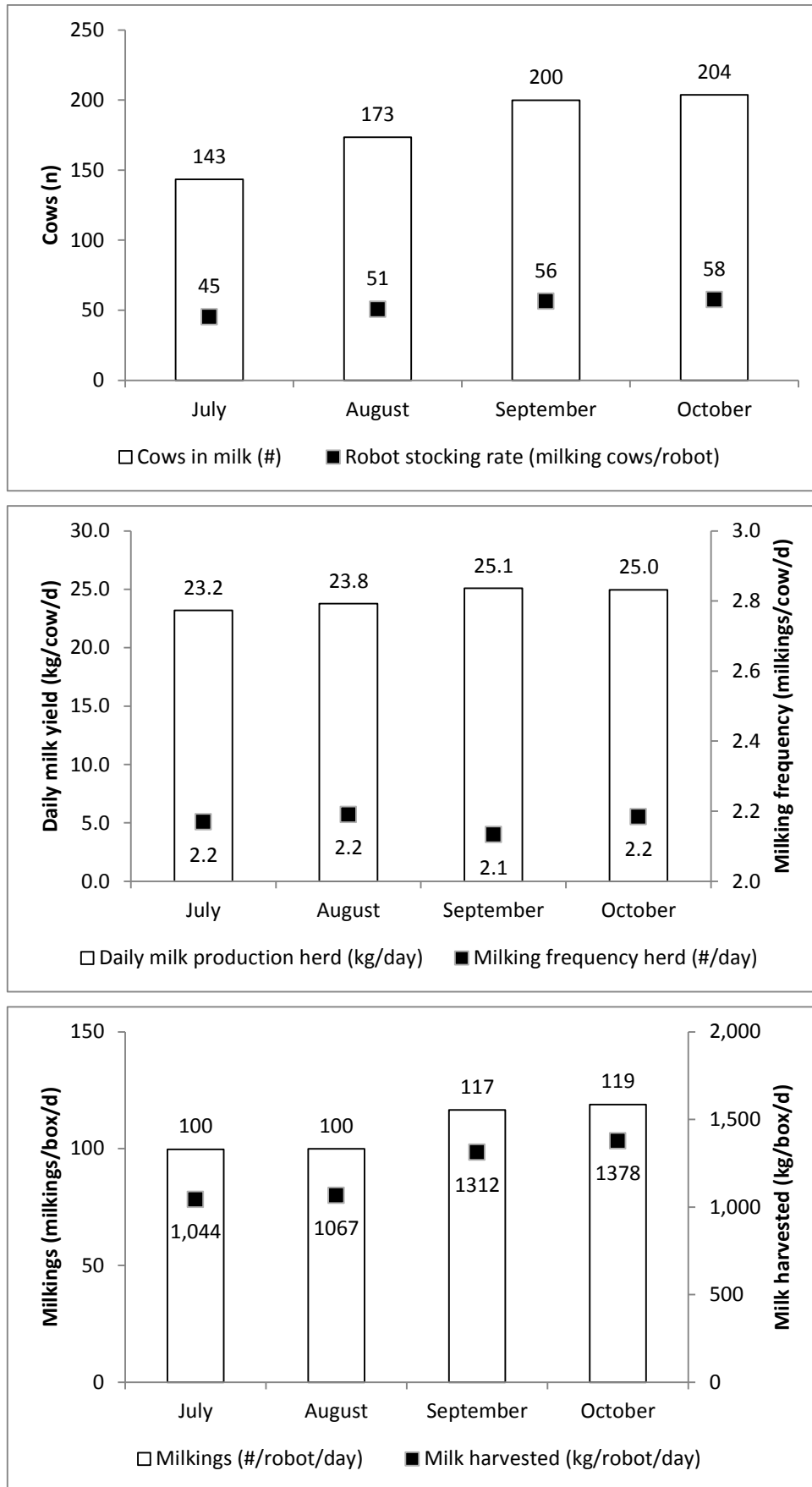


Figure 2: Herd information

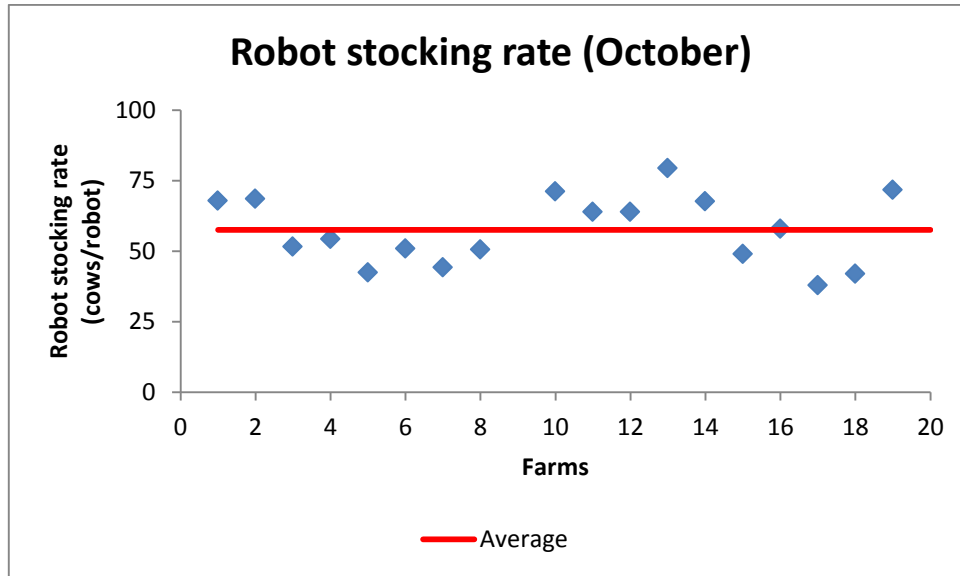


Figure 3: Daily milk information

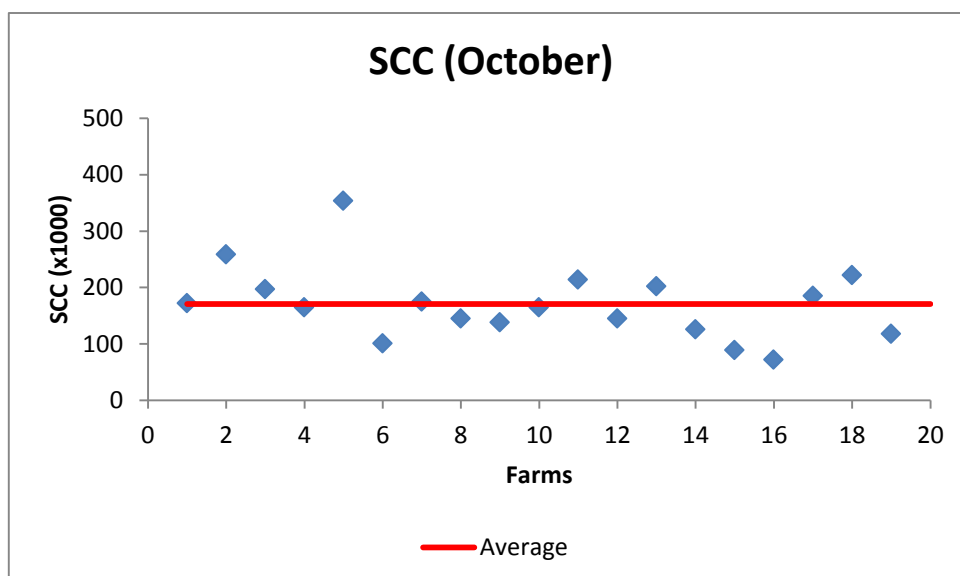
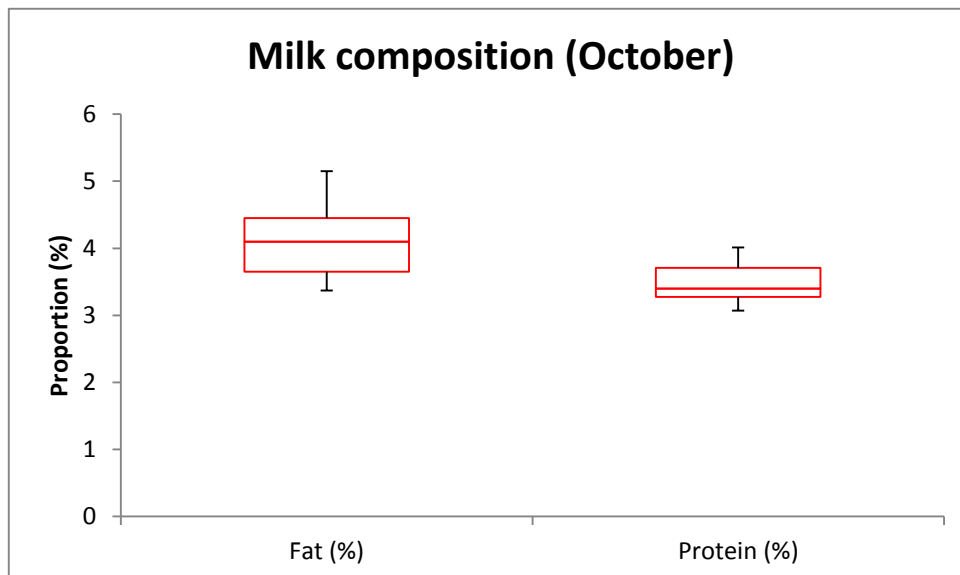
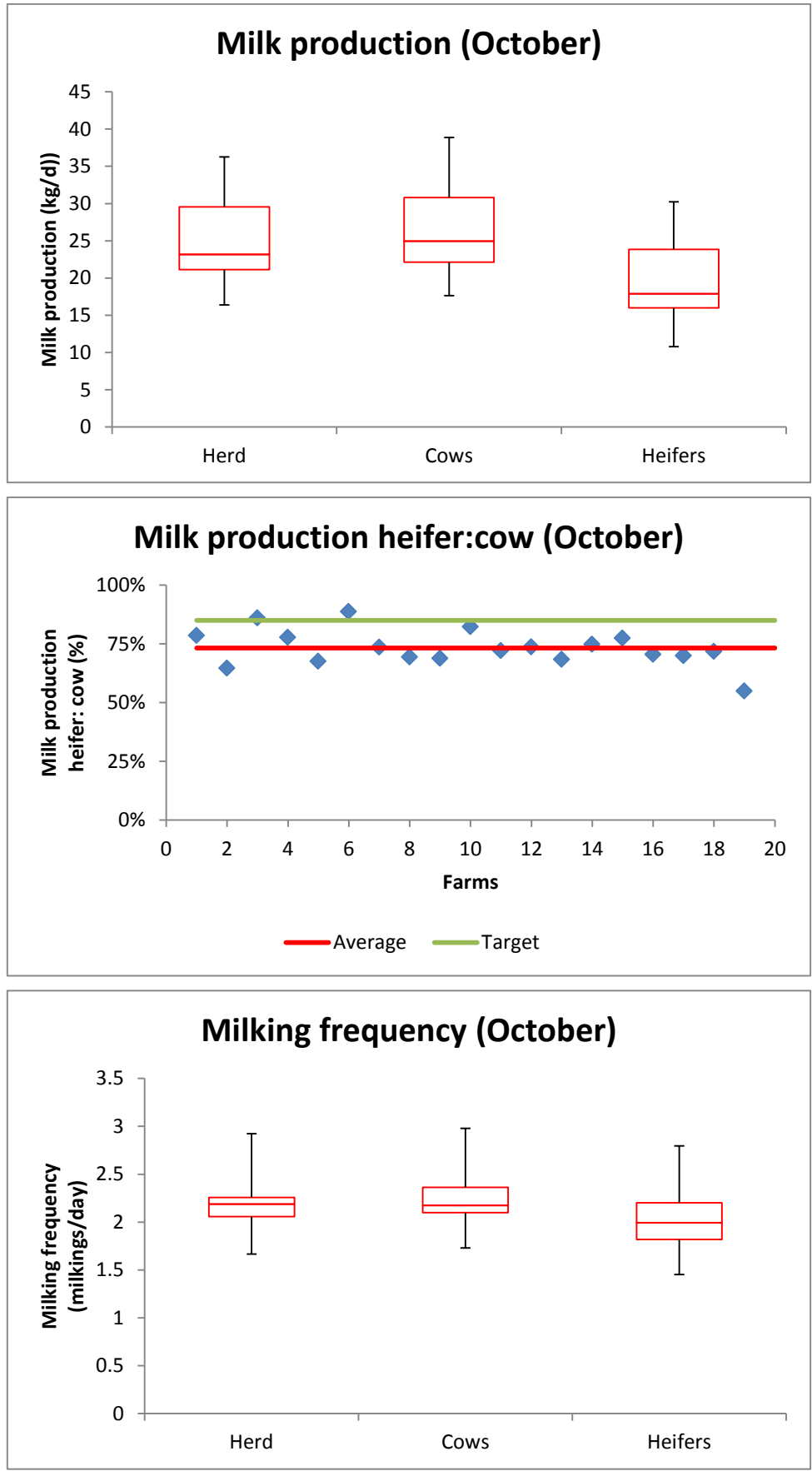


Figure 4: Daily cow information



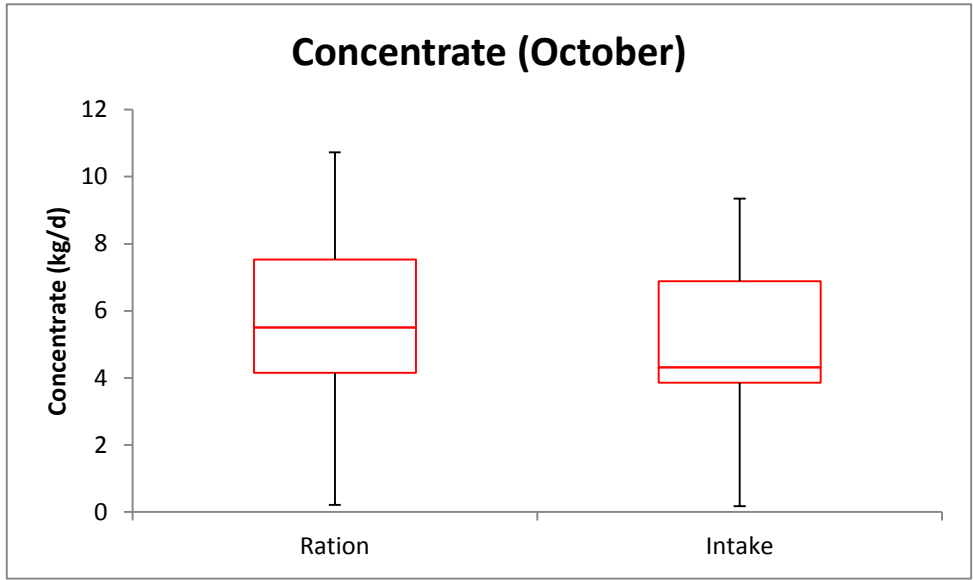
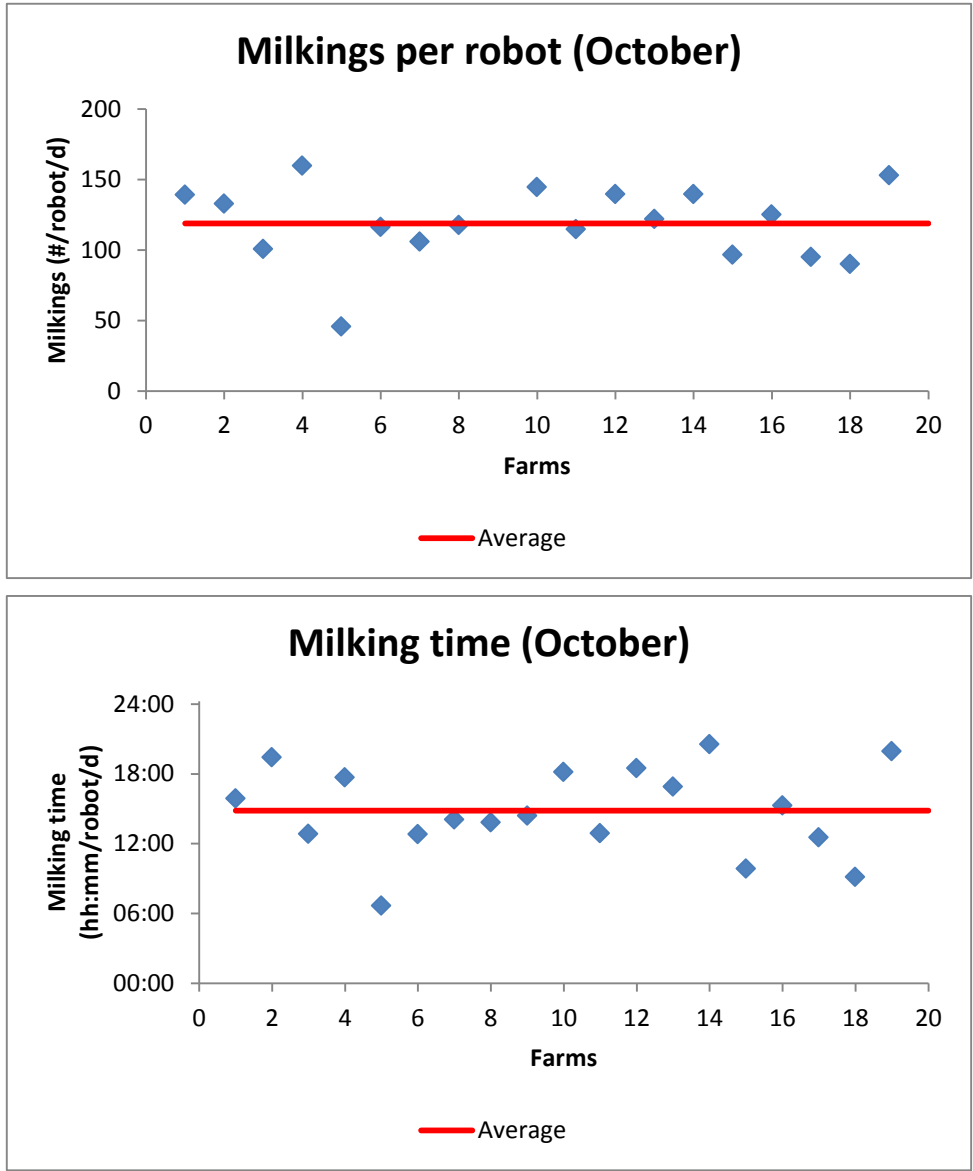
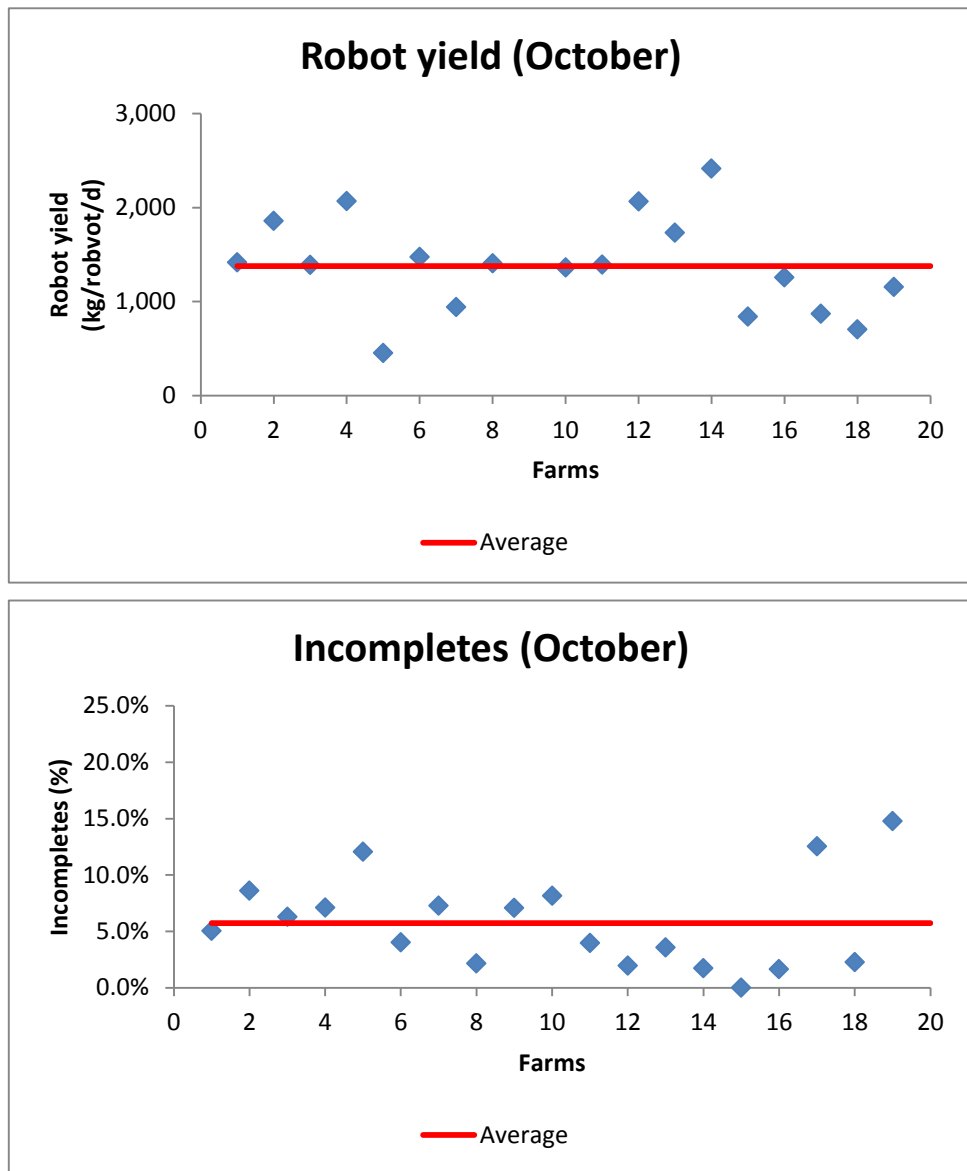


Figure 5: Robot performance





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

© State of New South Wales through the Department of Industry, Skills and Regional Development, 2016. 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 2016). 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.