

Deciding if Robotics is Right for You



Jared Feltz, *Feltz Family Farm*

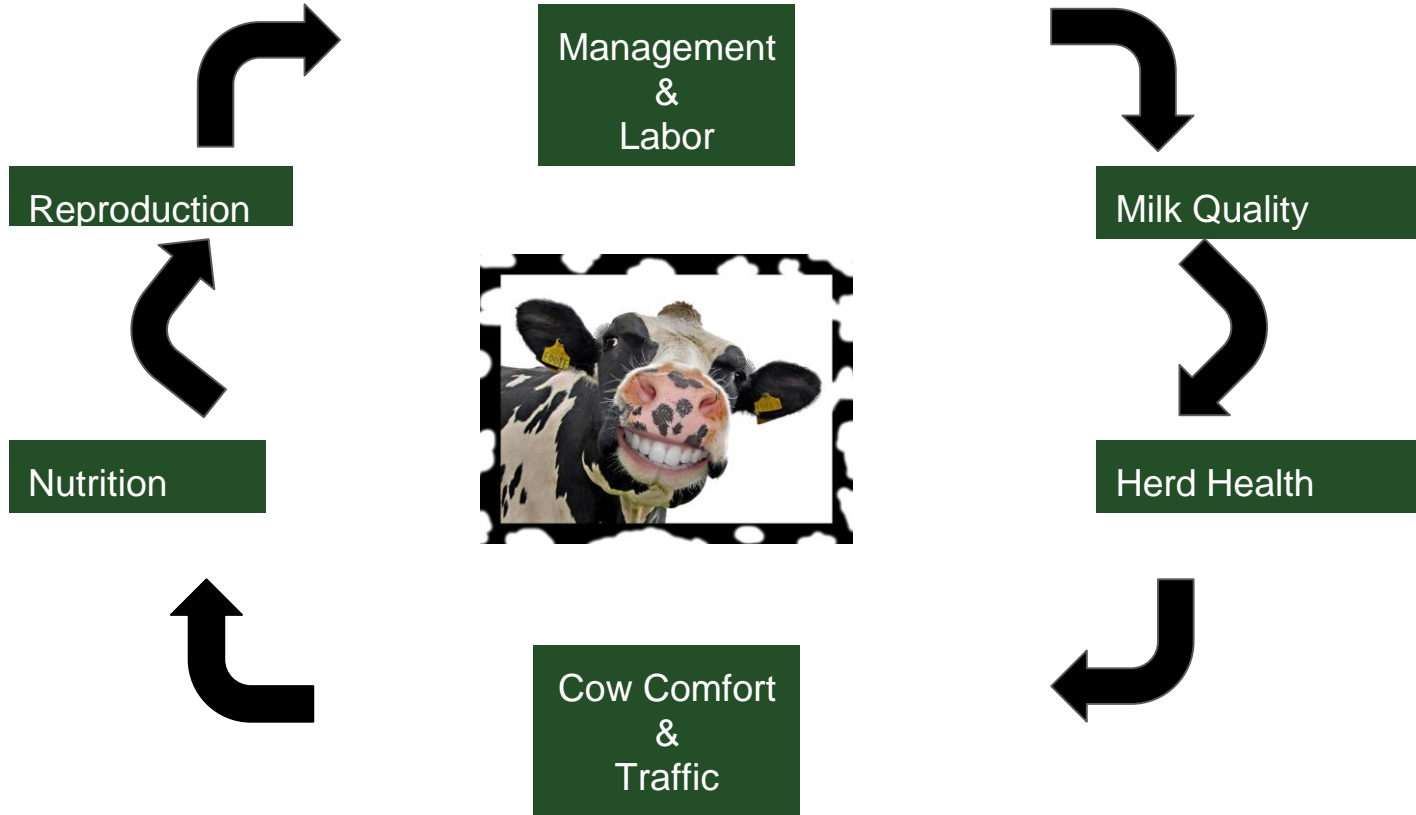
Dr. Michael Brouk, *Kansas State Univeristy*

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Jared Feltz
Stevens Point, WI



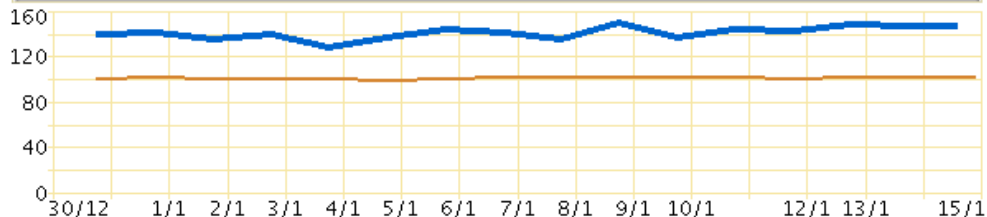




Our Robot Goals

Cows/robot	52-56
Milkings/cow/day	>3
Milk/cow/day	100#
SCC	100
Milking Duration	6:30
Yield/robot/day	5,000#

Date and time	Yield (lb)	Time (min)	Lb/min in MS	Incomp...	Kick Off	Cells	MDI	Blood
07:58	36.1	6	5.7				→	
02:39	38.1	6	6.2				→	
14/1 19:54	28.7	5	5.5				↙	
14/1 15:06	36.5	5	6.5				→	
14/1 09:35	50.5	7	7.0				→	
14/1 01:33	26.7	5	5.1				→	
13/1 21:03	30.9	5	6.1				→	
13/1 16:05	39.4	6	6.5				↙	
13/1 09:57	44.6	6	7.0				→	
13/1 03:11	25.9	4	5.3				↙	



Id: ● 2016 Group: 1 Milk in cow (lb): 44.7 7d (lb/day): 145.9
 Ce... Lactation: 3 No. of days: 91 Area: VMS 2 Holding

Production Style	Cows per Robot (calculated)	Pellet Pounds per Cow/Day	Gate passes per cow per day	Milking per Robot (7 Day Ave)	Milking per day -7 day ave	Ave Total Stall Time (7 Day Ave)	Milk Per Cow/Day (7 Day Ave)	Dairy		Annual Milk per employee (auto calculated)	Labor Cost per CWT @ \$50,000/FTE (auto calculated)	Total Number of Robots	Daily milk per robot (auto calculated)	Year of Operation	SCC
								Employees FTE (total hrs/ 8hr days) (No hfrs, no agronomy)	Cows per FTE Employee (auto calculated)						
Sand w/ BST	58	5.6	10.1	155	2.8	7:36	97	1.43	169	6,025,316	\$ 0.84	3.5	5,675	2.3	114
Sand w/No-BST	57	5.1	10.2	151	2.7	7:36	85	1.40	146	4,494,676	\$ 1.21	3.4	5,225	2.1	145
Mats w/No-BST	58	5.2	8.0	142	2.5	7:22	71	0.88	142	3,656,457	\$ 1.42	1.8	4,892	4.8	222
Bedding Type															
Sand, BST, w/Full Herd Mix	60	5.3	10.1	152	2.6	7:58	96	1.66	174	6,088,305	\$ 0.84	4.0	5,773	2.7	137
Sand, BST, w/Selected Herd	53	6.3	10.0	165	3.3	6:30	103	0.75	156	5,836,350	\$ 0.86	2.0	5,381	1.0	45
Herd Type - Sand															
Mats, No-BST, Full Herd Mix	59	5.3	8.2	146	2.5	7:40	72	1.09	136	3,533,213	\$ 1.49	2.3	4,272	4.0	195
Mats, No-BST, Selected Herd	55	5.1	7.5	133	2.4	8:02	71	0.45	153	3,902,945	\$ 1.28	1.0	3,889	6.5	275
Herd Type - Mats															
6-8 Robots	57	5.5	10.4	151	2.7	7:40	94	2.43	199	6,717,342	\$ 0.75	7.0	5,317	2.0	110
4-5 robots	58	5.0	9.1	147	2.6	7:47	87	1.82	173	5,489,387	\$ 0.94	4.6	5,044	3.8	208
2-3 Robots	58	5.2	9.6	152	2.6	7:23	85	1.01	138	4,250,714	\$ 1.25	2.0	4,934	2.1	123
1 Robots	57	5.2	8.9	143	2.5	7:51	76	0.60	123	3,316,705	\$ 1.56	1.0	4,299	4.3	200
Number of Robots															
Single Robot Pens	57	5.3	9.8	151	2.7	7:35	86	1.22	154	4,843,408	\$ 1.13	3.0	4,923	2.8	147
Multiple Robot Pens	58	5.1	7.9	141	2.5	7:44	76	1.25	136	3,634,608	\$ 1.44	2.5	4,397	4.3	223
Pen Type															
Best of each category	63	3.9	11.1	173	3.3	6:30	103	0.4	227	7,033,988	\$ 0.71	8.0	6,186	7.0	43
Worst of each category	51	10.0	6.0	126	2.3	8:05	54	2.6	90	2,622,691	\$ 1.91	1.0	2,835	1.0	330

What does the future look like?

- Industry trends
- Consumer interests
- Lifestyle
- Labor

