



UNIVERSITY OF SASKATCHEWAN
College of Agriculture
and Bioresources
DEPARTMENT OF ANIMAL AND POULTRY SCIENCE
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RAYNER

Dairy Research and Teaching Facility



Our shift to 2x day milking

September 1, 2022

- Separate groups for fresh cows (parlour vs. robot)
 - Training eligible heifers
- Also decreased milk feeding frequency to calves
 - 8 kg per day peak, encourage starter intake



2023 Dairy Info Day

- 102-105 cows
- Bulk tank
 - 38.5 L/cow/day
 - 4.24% fat
 - 3.37% protein
 - 5.97% LOS

STAGE OF LACTATION PROFILE

Stage (Days)	Cows	Test Day Production M kg	Lactation Average				Daily Fat Yield	Prot/Fat Ratio
			Milk kg	Current BCA				
				M	F	P		
1 - 44	11	57.1					2.15	.84
45 - 99	19	51.6	13043	293	299	306	1.85	.89
100 - 199	36	46.2	12894	315	340	339	1.84	.88
200 - 305	23	43.3	13537	321	335	347	1.71	.93
Over 305	12	38.0	14350	321	324	339	1.69	.90
Dry	18	-	12750	282	300	304	-	-
						ALL	1.82	.89



January 2024

- 100-110 cows
- Bulk tank
 - 37 L/cow/day
 - 4.59% fat
 - 3.38% protein
 - 5.96% LOS

STAGE OF LACTATION PROFILE

Stage (Days)	Cows	Test Day Production M kg	Lactation Average				Somatic Cell Count	Daily Fat Yield
			Milk kg	Current BCA				
				M	F	P		
1 - 44	18	43.8					74	1.76
45 - 99	18	45.3	11586	247	276	256	121	1.83
100 - 199	34	40.2	11562	267	302	280	97	1.66
200 - 305	31	37.2	12199	282	319	301	75	1.65
Over 305	7	33.0	13042	297	329	316	234	1.65
Dry	15	-	13386	283	300	298	-	-
						ALL	100	1.70



Parlour

- 70% milking herd
- 37.95 kg/day
- 150 DIM

AMS

- 30% milking herd
- 42.62 kg/day
- 200+ DIM
- 2.91 visits/day





Research Activity

2023/2024

- Accelerating recovery from intramammary inflammation
- Improving utilization of barley grain with variable kernel size
- Effects of pelleting/allocation in an AMS – part 1&2
- Polycrops for dairy cattle
- Hybrid rye silage for dairy cattle
- Blended fat stimulated feed products on rumen parameters and milk fat in dairy COWS



Research Activity

Future Projects

- Characterization of uterine microbiome and its modulatory factors in postpartum cows
- DFC Cluster - Developing an on-farm model to identify cows eligible for extended calving intervals based on individual peak milk yields and lactation persistency
- Dietary factors influencing urea recycling
- Animal production performance with triple fermented products
- Evaluation of intercropping silage: dairy cow production



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Gallery Update





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Thanks to SaskMilk!





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Foot Traffic

Gallery

- Bulk tank training
- RME/Jaylor equipment demonstration
- SaskFood Story
- Global Saskatoon
- Classroom tours better than ever

Saskatchewan students get a closer look at the agriculture industry



By **Brody Langager** • Global News

Posted November 1, 2023 1:27 pm • Updated November 1, 2023 6:04 pm • 2 min read





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Class Participation

- ANSC 315 – Animal and Poultry Nutrition
- ANSC 460 – Advanced Dairy Management
- ANSC 863 – Nutritional Consulting
- Groups of veterinary students (class and clinical settings)





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Field trips to the Rayner

Cannulated cow demonstration

Guided tour of the facility on the cow walk

Looking at rumen bugs under the microscope

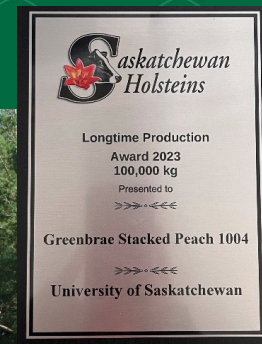
Biosecurity learning opportunity/food safety

Name a calf contest



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Keeps getting better





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Feedback welcome

