Livestock Grazing Management & Research Activities

Beginning in November 2006, a new livestock grazing management scheme was implemented on the Santa Rita Experimental Range (Santa Rita) under the supervision of Dr. George Ruyle, School of Natural Resources and the Environment and in cooperation with Andrew McGibbon who owns the livestock. This new management replaces the “Santa Rita Grazing System” experiment that was in place since 1972 (Martin and Severson. 1988. J. Range. Man. 41:291-295, and Mashiri et al. 2008. Rangeland Ecol. Manage. 61:368-379).

The new scheme applies adaptive grazing management principles to establish expected dormant season grazing capacity based on summer forage production, and summer grazing periods of only 10 days to avoid the re-grazing of plants in the summer growing season (Noelle et al. 2021. Frontiers in Veterinary Science, section Animal Behavior and Welfare. 7, 1023. https://doi.org/10.3389/fvets.2020.600734). The adaptive management elements include 1) use of summer production values to re-adjust stocking rates each fall, 2) start and duration of the summer growing season to determine when livestock should be moved between pastures, and 3) flexible pasture use to support the variety of research projects being performed on the Santa Rita.

Currently, there are two herds moving through multiple pastures to consolidate livestock handling activities and more precisely manage grazing use. The large herd of ~450 animals will move through a combination of 21 pastures, 15 are located on the Santa Rita, and 3 on the Coronado National Forest, and 3 on Arizona State Lands. The small herd, ~100 animals, will move through 11 pastures all but two are on the Santa Rita. Brett Blum and associates are measuring forage production and utilization, livestock movement patterns, and developing methods to forecast forage availability and likelihood of re-grazing plants in the summer growing season.

Researchers, instructors, and other interested parties are advised to consult the accompanying tables and maps to learn the specific location, timing and number of livestock expected in each pasture; as well as the actual use in those areas. Be aware that 1) some animals may appear in pastures outside these expected periods because of handling problems, 2) livestock use of unintended pastures is not shown in the report below, and 3) adjustment to timing and numbers can be made to accommodate research and instruction needs.

Since November 2008, a new practice has been implemented by opening pasture gates 1-2 days before the official start date for grazing in the new pasture. Typically, the gates will open 1 day earlier, but the 2-day window will be common when there are frequent moves (every 10 days) during the summer growing season. This practice is being adopted to reduce the separation of calves from cows during the move between pastures.

Planned Livestock Grazing on the Santa Rita Experimental Range

01 November 2024 - 31 October 2025

Below are the projected livestock grazing days for the “large herd” and “small herd” of livestock on the Santa Rita Experimental Range for the grazing year 01 November 2024 - 31 October 2025 and extended beyond October 2025 for planning purposes. Projected grazing use is based on our current best estimates of available forage and the commencement of summer rains. The projected dates and herd size may change as forage conditions change and monitoring data are analyzed.

Both large and small herd plans are followed by a figure comparing the cumulative projected and actual grazing days on the SRER throughout the grazing season. Grazing Days for a month is the sum of the number of cattle present each day for that month, and Cumulative Grazing Days is the sum of all months before and including the current month. Projected Grazing Days are based on the grazing plan starting on November 1st. Actual Grazing Days are reported monthly by the Santa Rita Ranch. Cumulative grazing days consider only pastures on the SRER. Private, Forest Service, and State pastures outside the SRER are not included.

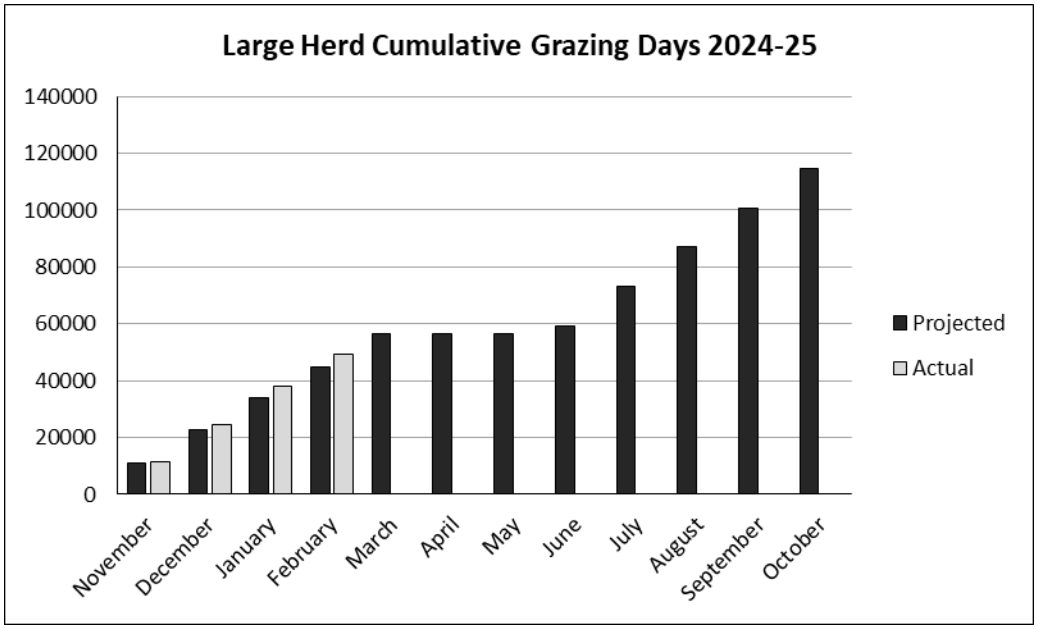
Significant changes in the grazing schedule will be announced on the list serve srer@list.cals.arizona.edu. Assume accuracy of projected dates to increase as those dates get closer. See the Grazing Management Map (below) for spatial details. Direct questions to Brett Blum (bcb@arizona.edu) or Mitch McClaran (mcclaran@u.arizona.edu).

Plan Update 01 March 2025

SRER Large Herd (Herd 1 on map) **Plan Update:** **01-Mar-2025**

		Projected					Actual				
Year	**Pasture** (*acres*)	**Herd Size (AU's)**	**Start Date**	**End Date**	**Days**	**Animal Days per Acre**	**Herd Size (AU's)**	**Start Date**	**End Date**	**Days**	**Animal Days per Acre**
2024	**6B** (*1677*)						187	28-Sep	02-Nov	36	4.0
	6A (*2686*)	370	15-Oct	23-Nov	40	5.5	217	19-Oct	12-Dec	55	4.4
	6E (*910*)	370	24-Nov	3-Dec	10	4.1	419	21-Nov	12-Dec	22	10.1
2025							92	20-Jan	28-Jan	9	0.9
	2N (4585)	370	4-Dec	1-Feb	60	4.8	377	13-Dec	14-Feb	64	5.3
	2S (*1389*)	370	2-Feb	21-Feb	20	5.3	341	11-Feb	28-Feb	18	4.4
	12A (*995*)	450	25-Feb	1-Mar	5	2.3					
	12B (*1610*)	450	2-Mar	16-Mar	15	4.2					
	12E (*2562*)	450	17-Mar	26-Mar	10	1.8					
	Canoa N/S* (*5513*)	450	27-Mar	25-May	60	4.9					
	State* (*2778*)	450	26-May	24-Jun	30	4.9					
	12C (*1886*)	450	25-Jun	24-Jul	30	7.2					
	12A (*995*)	450	25-Jul	29-Jul	5	2.3					
	3 (*4104*)	450	30-Jul	23-Aug	25	2.7					
	5S (*4699*)	450	24-Aug	22-Sep	30	2.9	104	20-Jan	02-Feb	18	0.4
	5M (*3448*)	450	23-Sep	12-Oct	20	2.6					
	5N (*2025*)	450	16-Oct	14-Nov	30	6.7					
	15 (*4217*)	450	15-Nov	29-Nov	15	1.6					

* These pastures are not part of the Santa Rita Experimental Range; and Canoa pastures not yet split.

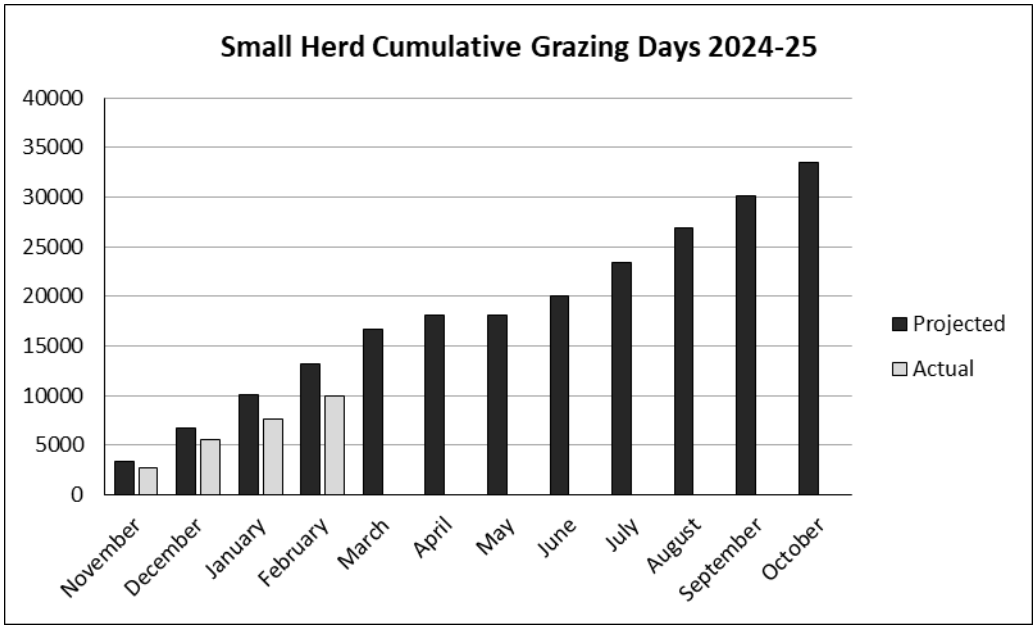


Comparison of Projected and Actual Cumulative Grazing Days for the Large Herd in 2024-25. In this grazing year, cattle were projected to be on the Santa Rita pastures for 275 days, and through February 2025, they have been on for 120 days.

SRER Small Herd (Herd 2 on map) **Plan Update:** **01-Mar-2025**

		Projected					Actual				
Year	**Pasture** (*acres*)	**Herd Size (AU's)**	**Start Date**	**End Date**	**Days**	**Animal Days per Acre**	**Herd Size (AU's)**	**Start Date**	**End Date**	**Days**	**Animal Days per Acre**
2024	**UA-E** (*156*)	110	24-Oct	2-Nov	10	7.1					
	UA-G (*441*)	110	3-Nov	27-Nov	25	6.2	90	20-Oct	05-Nov	17	3.5
	UA-F (*336*)	110	28-Nov	17-Dec	20	6.5	90	06-Nov	26-Nov	21	5.6
	1 (*782*)	110	21-Dec	8-Feb	50	7.0	90	27-Nov	03-Jan	38	4.4
2025	**8** (*815*)	110	9-Feb	4-Apr	55	7.4	82	09-Jan	28-Feb	51	5.1
	11C (*214*)	110	5-Apr	14-Apr	10	5.1					
	FS Ranger Pasture	110	15-Apr	13-Jun	60						
	4 (*670*)	110	14-Jun	2-Aug	50	8.2					
	11B (*212*)	110	3-Aug	12-Aug	10	5.2					
	UA-A (*549*)	110	16-Aug	4-Sep	20	4.0					
	UA-C (*365*)	110	5-Sep	24-Sep	20	6.0					
	UA-H (*453*)	110	25-Sep	14-Oct	20	4.9					
	UA-G (*441*)	110	15-Oct	3-Nov	20	5.0					
	UA-D (*357*)	110	4-Nov	28-Nov	25	7.7					

*These pastures are not part of the Santa Rita Experimental Range. Forest Service Pastures include Ranger and Florida pastures.



Comparison of Projected and Actual Cumulative Grazing Days for the Small Herd in 2024-25. In this grazing year, cattle were projected to be on the Santa Rita pastures for 305 days, and through February 2025, they have been on for 115 days.

SRER Pastures **Plan Update:** **01-Mar-2025**

Pasture (*acres*)	Use	**Projected**				**Actual**			
		Herd Size (AU's)	Start Date	End Date	Grazing Days	Herd Size (AU's)	Start Date	End Date	Grazing Days
140 Trap (*209*)	temporary	370	22-Feb	24-Feb	3				
Huerfano Trap	temporary								
Madera Trap	Bull calves								
N Shipping	temporary	450	13-Oct	15-Oct	3				
HQ	temporary	110	18-Dec	20-Dec	3				
UA-Corral	temporary	110	13-Aug	15-Aug	3				
UA–E (*156*)	Bull calves								
6C (*427*)	temporary								
9 *(955)*	TBD								
11A (*204*)	temporary								
16 *(636)*	temporary								
10 *(603)*	TBD								
12D *(1079)*	temporary								
302 *(132)*	temporary								

Map of Livestock Grazing Patterns for Two Herds on the Santa Rita Experimental Range