

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 (gruyle@cals.arizona.edu) 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 based on avoiding the re-grazing of plants in the summer growing season. 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 ~500 animals will move through a combination of 20 pastures, 15 are located on the Santa Rita, and 3 on the Coronado National Forest, and 3 on Arizona State Lands. The small herd, ~70 animals, will move through 11 pastures all but two are on the Santa Rita.

Dr. Ruyle 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.

Grazing on the Santa Rita Experimental Range page 2 of 5
 Planned Livestock Grazing on the Santa Rita Experimental Range
 01 November 2019 - 31 October 2020

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 2019 - 31 October 2020, and extended beyond October 2020 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. Significant changes in the 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 George Ruyle (gruyle@cals.arizona.edu) or Mitch McClaran (mcclaran@u.arizona.edu).

Plan Update 31 October 2020

SRER Large Herd (Herd 1 on map)

Plan Update: 31-Oct-2020

		Projected					Actual				
		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
2019	Pasture (acres)										
	12C (1886)	500	2-Nov	22-Nov	21	5.6	399	04-Nov	24-Nov	21	4.4
	12A (995)	500	23-Nov	24-Nov	2	1.0	480	21-Nov	24-Nov	4	1.9
	2S (1389)	500	25-Nov	4-Dec	10	3.6	437	29-Nov	06-Dec	8	2.5
2020	2N (4585)	500	5-Dec	13-Jan	40	4.4	467	06-Dec	18-Jan	42	4.3
	6E (910)	500	14-Jan	26-Jan	13	7.1	361	16-Jan	03-Feb	19	7.5
	6A (2686)	500	27-Jan	4-Mar	38	7.1	477	30-Jan	10-Mar	41	7.3
	6D (1978)	500	5-Mar	1-Apr	28	7.1	439	16-Mar	13-Apr	29	6.4
	15 (4217)	500	2-Apr	21-Apr	20	2.4	447	11-Apr	06-May	26	2.8
	6B (1677)	500	22-Apr	3-May	12	3.6	457	05-May	20-May	16	4.4
	5N (2025)	500	4-May	17-May	14	3.5	413	20-May	06-Jun	18	2.2
	5 Mid (3448)	500	18-May	19-May	2	0.3	272	05-Jun	15-Jun	11	0.6
	5S (4699)	500	20-May	5-Jun	17	1.8	330	11-Jun	01-Jul	21	1.5
	3 (4104)	500	6-Jun	25-Jun	20	2.4	429	01-Jul	09-Jul	9	1.0
	12B (1610)	500	26-Jun	30-Jun	5	1.6	279	14-Jul	20-Jul	7	0.8
	12E (2562)	500	1-Jul	7-Jul	7	1.4	472	18-Jul	21-Jul	4	0.7
	Canoa S (5513)	500	8-Jul	11-Sep	66	6.0	480	22-Jul	31-Oct	102	8.9
	Canoa N *	500									
	State*(2778)	500	12-Sep	20-Oct	39	7.0					
	12C (1886)	500	21-Oct	9-Nov	20	5.3					
12A (995)	500	10-Nov	13-Nov	4	2.0						
2S (1389)	500	14-Nov	23-Nov	10	3.6						

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

SRER Small Herd (Herd 2 on map)

Last Update: 31-Oct-2020

	Pasture (acres)	Projected					Actual				
		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
2019	UA-E (156)	80	1-Nov	7-Nov	7	3.6	80	01-Nov	05-Nov	5	1.2
	Private Pasture	80	8-Nov	20-Nov	13		80	06-Nov	20-Nov	15	
	1 (782)	80	21-Nov	30-Dec	40	4.1	80	21-Nov	27-Dec	37	3.8
2020	8 (815)	80	31-Dec	28-Feb	60	5.9	80	28-Dec	25-Feb	60	5.9
	11C (214)	80	29-Feb	9-Mar	10	3.7	80	26-Feb	03-Mar	7	2.6
	4 (670)	80	10-Mar	12-May	64	7.6	80	04-Mar	04-May	62	7.4
	Forest Service Ranger Pasture*	80	13-May	11-Jul	60		80	05-May	08-Jul	65	
	11B (212)	80	12-Jul	15-Jul	4	1.5	77	09-Jul	14-Jul	6	2.2
	UA-A (549)	80	16-Jul	25-Jul	10	1.5	77	15-Jul	27-Jul	13	1.8
	UA-C (365)	80	26-Jul	04-Aug	10	2.2	77	28-Jul	07-Aug	12	2.5
	UA-H (453)	80	05-Aug	14-Aug	10	1.8	77	08-Aug	18-Aug	11	1.9
	UA-G (441)	80	15-Aug	24-Aug	10	1.8	77	19-Aug	29-Aug	11	1.9
	UA-F (336)	80	25-Aug	03-Sep	10	2.4	77	30-Aug	08-Sep	10	2.3
	UA-C (365)	80	04-Sep	13-Sep	10	2.2	77	09-Sep	17-Sep	9	1.9
	UA-D (357)	80	14-Sep	03-Oct	20	4.5	77	18-Sep	29-Sep	12	2.6
	UA-E (156)	80	04-Oct	08-Oct	5	2.6	77	30-Sep	06-Oct	7	3.5
	Private Pasture	80	09-Oct	22-Oct	14		77	11-Oct	31-Oct	21	
	1 (782)	80	23-Oct	01-Dec	40	4.1	77	07-Oct	10-Oct	4	0.4
8 (815)	80	02-Dec	27-Jan	57	5.6						

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

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

