

Beginning in November 2007, 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 (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 ~540 animals will move through a combination of 18 pastures, 14 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.

Starting in November 2008, there will be a new practice of 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 2016 - 31 October 2017

Below are the projected livestock grazing days for the “large herd,” “small herd,” and “special herds” of livestock on the Santa Rita Experimental Range for the grazing year 01 November 2015 - 31 October 2016, and extended to late November 2016 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).

Last Plan Update: 31 October 2017

SRER Large Herd (Herd 1 on map)

Last Update: 31-Oct-2017

	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
2016	2S (1389)	470	31-Oct	09-Nov	10	3.4	467	31-Oct	08-Nov	9	3.0
	2N (4585)	470	10-Nov	03-Jan	55	5.6	419	09-Nov	12-Jan	65	5.9
2017	6E (910)	470	04-Jan	14-Jan	11	5.7	434	05-Jan	27-Jan	23	11.0
	6A (2686)	470	15-Jan	03-Feb	20	3.5	383	24-Jan	13-Feb	21	3.0
	6D (1978)	470	04-Feb	23-Feb	20	4.8	463	18-Feb	06-Mar	17	4.0
	15 (4217)	470	24-Feb	20-Mar	25	2.8	409	05-Mar	02-Apr	29	2.8
	6B (1677)	470	21-Mar	04-Apr	15	4.2	419	01-Apr	16-Apr	16	4.0
	5N (2025)	470	05-Apr	19-Apr	15	3.5	409	15-Apr	02-May	18	3.6
	5 Mid (3448)	470	20-Apr	15-May	26	3.5	235	14-Feb	16-Feb	3	3.2
							410	05-May	29 May	25	
	5S (4699)	470	16-May	19-Jun	35	3.5	235	14-Feb	16-Feb	3	3.5
							426	26-May	01-Jul	37	
	3 (4104)	470	20-Jun	09-Jul	20	2.3	50	06-Jan	09-Jan	4	2.3
							343	29-Jun	25-Jul	27	
	12B (1610)	470	10-Jul	19-Jul	10	2.9	375	21-Jul	02-Aug	13	3.0
	12E (2562)	470	20-Jul	29-Jul	10	1.8	195	02-Aug	28-Aug	27	2.1
	Canoa S (5513)	470	30-Jul	30-Sep	63	5.4	461	13-Aug	09-Oct	19	4.8
Canoa N *	470										
State *(2778)	470	01-Oct	02-Nov	33	5.6	465	09-Oct	31-Oct	23	3.9	
12C (1886)	470	03-Nov	16-Nov	14	3.5						
12A (995)	470	17-Nov	21-Nov	5	2.4						
2S (1389)	470	22-Nov	01-Dec	10	3.4						

* 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-2017

	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
2016	1 (782)	85	03-Oct	07-Nov	36	3.9	82	03-Oct	07-Nov	36	3.8
	8 (815)	85	08-Nov	13-Jan	67	7.0	82	19-Nov	15-Jan	68	6.8
2017	11C (214)	85	14-Jan	23-Jan	10	4.0	82	16-Jan	23-Jan	08	3.1
	4 (670)	85	24-Jan	19-Mar	55	10.4	82	24-Jan	16-Mar	52	7.7
		79	13-Jun	11-Jul	29		76	27-Jun	11-Jul	12	
	Forest Service Ranger Pasture*	85	20-Mar	12-Jun	85		85	17-Mar	26-Jun	102	
	11B (212)	85	13-Jun	14-Jun	2	0.8					
		85	12-Jul	19-Jul	8	3.2	76	12-Jul	24-Jul	13	4.7
	UA-A (549)	85	15-Jun	09-Jul	25	3.9					
		85	20-Jul	21-Jul	2	0.3	85	27-Jul	29-Jul	3	0.5
	UA-D (357)	85	31-Jul	09-Aug	40	2.4					
		85	22-Jul	31-Jul	10	2.4	85	30-Jul	07-Aug	9	2.1
	UA-C (365)	85	30-Aug	08-Sep	40	2.3					
		85	01-Aug	10-Aug	10	2.3	85	08-Aug	12-Aug	5	1.2
	UA-H (453)	85	10-Jul	30-Jul	21	3.9					
		85	11-Aug	20-Aug	10	1.9	85	13-Aug	22-Aug	10	1.9
	UA-G (441)	85	10-Aug	19-Aug	40	4.9					
		85	21-Aug	30-Aug	10	1.9	85	23-Aug	03-Sep	12	2.3
	UA-F (336)	85	20-Aug	29-Aug	40	2.5					
		85	31-Aug	09-Sep	10	2.5	85	04-Sep	14-Sep	11	2.8
	UA-E (156)	85	09-Sep	10-Sep	2	1.1					
		1 (782)	85	11-Sep	26-Oct	46	5.0				
8 (815)	85	10-Sep	30-Sep	20	2.2	85	15-Oct	30-Oct	16	1.7	
	85	27-Oct	22-Dec	57	5.9						
		85	31-Sep	25-Nov	57	5.9	85	31-Oct		1	

* 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

