

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 2017 - 31 October 2018

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 2018

SRER Large Herd (Herd 1 on map)

Last Update: 31-Oct-2018

	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
2017	State*(2778)	470	09-Oct	10-Nov	33	5.6	436	09-Oct	16-Nov	41	6.4
	12C (1886)	470	11-Nov	24-Nov	14	3.5	367	16-Nov	30-Nov	15	2.9
	12A (995)	470	25-Nov	28-Nov	4	1.9	426	28-Nov	30-Nov	3	1.3
	2S (1389)	470	29-Nov	07-Dec	9	3.0	470	12-Dec	20-Dec	9	3.0
	2N (4585)	470	08-Dec	02-Jan	26	2.7	418	21-Dec	22-Jan	33	3.0
2018	6E (910)	470	03-Jan	12-Jan	10	5.2	453	19-Jan	01-Feb	14	7.0
	6A (2686)	470	13-Jan	02-Feb	21	3.7	464	20-Feb	14-Mar	23	4.0
	6D (1978)	470	03-Feb	22-Feb	20	4.8	464	16-Mar	02-Apr	17	4.0
	15 (4217)	470	23-Feb	19-Mar	25	2.8	402	29-Mar	29-Apr	29	2.8
	6B (1677)	470	20-Mar	02-Apr	14	3.9	461	28-Apr	10-May	13	3.6
	5N (2025)	470	03-Apr	17-Apr	15	3.5	426	12-May	26-May	14	2.9
	5 Mid (3448)	470	18-Apr	13-May	26	3.5	412	26-May	12-Jun	18	2.2
	5S (4699)	470	14-May	17-Jun	35	3.5	436	11-Jun	30-Jun	20	1.9
	3 (4104)	470	18-Jun	06-Jul	19	2.2	284	29-Jun	06-Jul	7	0.5
	2S (1389)	470	07-Jun	09-Jun	3	1.0					
	12B (1610)	470	10-Jul	19-Jul	10	2.9	417	03-Jul	08-Jul	6	1.6
	12E (2562)	470	20-Jul	29-Jul	10	1.8	466	09-Jul	16-Jul	8	1.5
	Canoa S (5513)	470	30-Jul	30-Sep	63	5.4	467	17-Jul	20-Sep	66	5.6
	Canoa N *	470									
	State*(2778)	470	01-Oct	02-Nov	33	5.6	464	27-Sep	31-Oct	35	5.8
	12C (1886)	470	03-Nov	16-Nov	14	3.5					
12A (995)	470	17-Nov	20-Nov	4	1.9						
2S (1389)	470	21-Nov	30-Nov	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-2018

	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
2017	8 (815)	85	31-Oct	26-Dec	57	5.9	85	31-Oct	26-Dec	57	5.9
2018	11C (214)	85	27-Dec	05-Jan	10	4.0	85	03-Jan	09-Jan	07	2.8
	4 (670)	85	06-Jan	01-Mar	55	7.0	85	10-Jan	05-Mar	55	7.0
	Forest Service Ranger Pasture*	85	02-Mar	25-May	85		85	06-Mar	31-May	87	
	11B (212)	85	26-May	02-Jun	8	3.2	85	01-Jun	11-Jun	11	4.4
	UA-A (549)	85	03-Jun	12-Jul	10	1.5	85	15-Jun	25-Jun	11	1.7
	UA-C (365)	85	13-Jun	02-Jul	20	4.7	85	26-Jun	15-Jul	20	4.7
	UA-D (663)	85	03-Jul	22-Jul	20	2.6	85	16-Jul	04-Aug	20	2.6
	UA-F (336)	85	23-Jul	01-Aug	10	2.5	85	05-Aug	14-Aug	10	2.5
	UA-G (441)	85	02-Aug	11-Aug	10	1.9	85	15-Aug	26-Aug	12	2.3
	UA-H (453)	85	12-Aug	21-Aug	10	1.9	85	27-Aug	07-Sep	12	2.3
	UA-E (156)	85	22-Aug	26-Aug	5	2.7					
	Private Pasture	85	27-Aug	09-Sep	14		85	08-Sep	23-Sep	16	
	1 (782)	85	10-Sep	29-Sep	20	2.2	76	24-Sep	31-Oct	38	3.7
8 (815)	85	30-Sep	25-Nov	57	5.9						

* 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

