

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 2015 - 31 October 2016

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 Oct 2016

SRER Large Herd (Herd 1 on map)

Last Update: 31-Oct-2016

		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	
2015	Pasture (acres)											
	2N (4585)	470	21-Oct	30-Nov	40	4.9	365	21-Oct	13-Dec	55	4.4	
	6A (2686)	470	01-Dec	20-Dec	20	3.5	350	04-Dec	10-Jan	38	5.0	
	6D (1978)	470	21-Dec	06-Jan	17	4.0	393	04-Jan	04-Feb	31	6.2	
2016	6B (1677)	470	07-Jan	20-Jan	14	3.9	275	02-Feb	21-Feb	20	3.3	
	15 (4217)	470	21-Jan	14-Feb	25	2.8	234	12-Feb	21-Feb	10	0.6	
	5N (2025)	470	15-Feb	27-Feb	13	3.0	358	19-Feb	08-Mar	13	2.3	
	5 Mid (3448)	470	28-Feb	20-Mar	22	3.0	388	03-Mar	28-Mar	26	2.1	
	5S (4699)	470	21-Mar	19-Apr	30	3.0	419	28-Mar	02-May	36	3.2	
	3 (4104)	470	20-Apr	19-May	30	3.4	338	29-Apr	09-Jun	42	3.5	
	12B (1610)	470	20-May	29-May	10	2.9	364	31-May	09-Jun	10	2.3	
	12E (2562)	470	30-May	14-Jun	16	2.9	377	09-Jun	28-Jun	20	2.9	
	Canoa S (5513)	470	15-Jun	13-Aug	60	5.1	431	01-Jul	01-Sep	63	4.9	
	Canoa N *	470										
		State*(2778)	470	14-Aug	12-Sep	30	5.1	361	29-Aug	21-Oct	48	6.2
		12C (1886)	470	13-Sep	26-Sep	14	3.5	394	28-Sep	12-Oct	15	3.1
		12A (995)	470	27-Sep	01-Oct	5	2.4	415	19-Oct	25-Oct	7	2.9
	2S (1389)	470	02-Oct	11-Oct	10	3.4	384	31-Oct				
	2N (4585)	470	12-Oct	23-Nov	20	4.4						

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

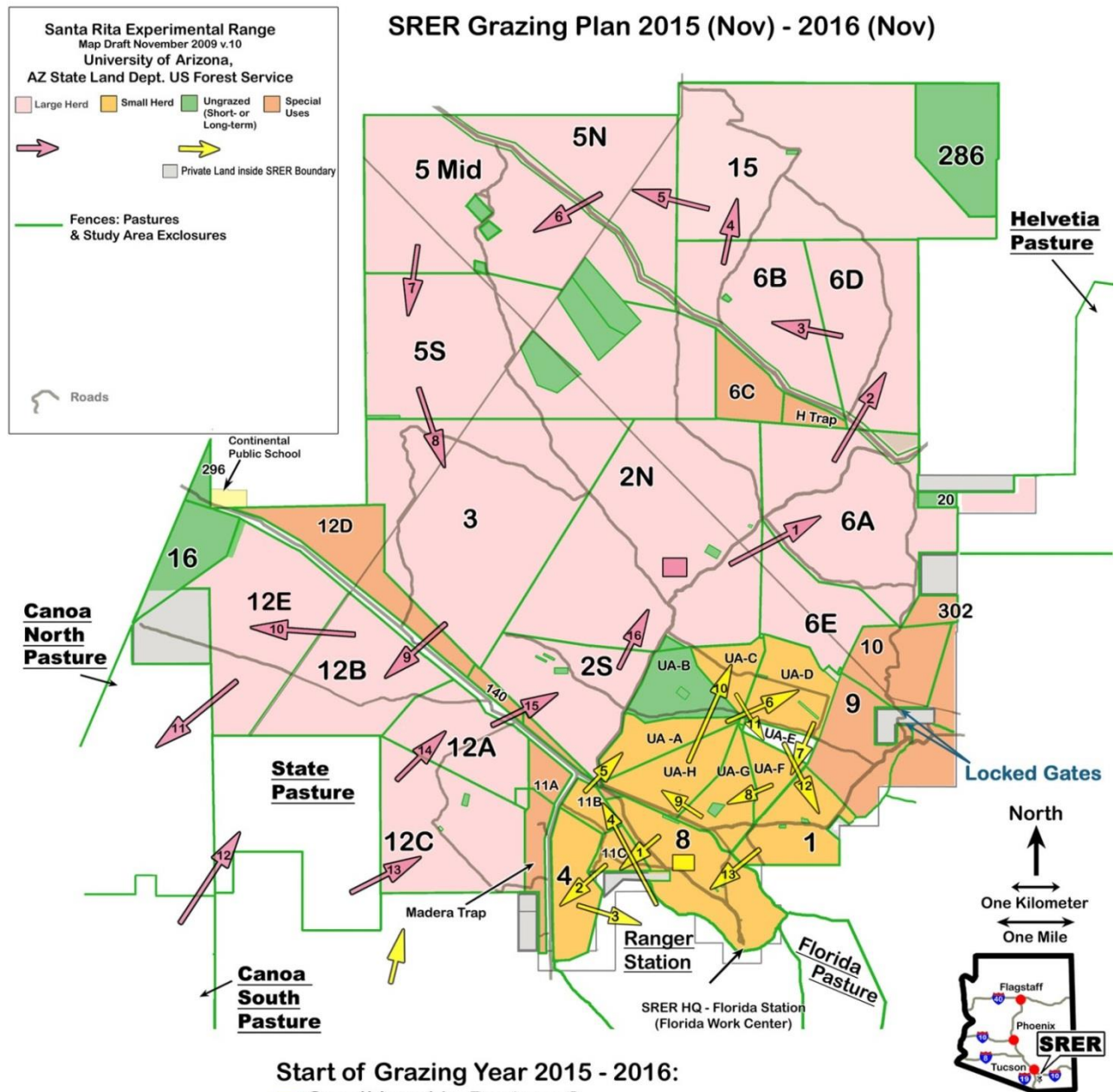
SRER Small Herd (Herd 2 on map)

Last Update: 31-Oct-2016

	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
2015	1 (782)	0					81	01-Nov	03-Nov	3	0.3
	8 (815)	85	24-Oct	20-Dec	58	6.0	74	04-Nov	04-Jan	62	5.6
	11C (214)	85	21-Dec	30-Dec	10	4.0	81	13-Jan	21-Jan	9	3.4
	4 (670)	85	31-Dec	09-Mar	70	8.9	62	22-Jan	31-Mar	70	6.5
	Forest Service Ranger Pasture*	85	10-Mar	02-Jun	85		82	01-Apr	05-Jun	67	
	11B (212)	85	03-Jun	04-Jun	2	0.1	82	06-Jun	07-Jun	1	0.4
	UA-A (549)	85	05-Jun	27-Jun	23	3.6	82	07-Jun	27-Jun	21	3.1
	UA-D (663)	85	28-Jun	22-Jul	25	3.2	82	28-Jun	22-Jul	25	3.2
							82	22-Aug	23-Aug	1	
	UA-F (336)	85	23-Jul	01-Aug	10	2.5	82	23-Jul	31-Jul	18	6.8
							82	23-Sep	02-Oct	10	
	UA-G (441)	85	02-Aug	11-Aug	10	1.9	82	02-Aug	11-Aug	10	1.9
	UA-H (453)	85	12-Aug	21-Aug	10	1.9	82	12-Aug	21-Aug	10	1.8
	UA-C (365)	85	22-Aug	15-Sep	25	5.8	82	22-Aug	22-Sep	31	7.0
	UA-E (156)	85	16-Sep	17-Sep	2	1.1					
	1 (782)	85	18-Sep	22-Oct	35	3.8	82	03-Oct	31-Oct	29	3.0
	8 (815)	85	23-Oct	26-Nov	35	3.7					

* 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



Start of Grazing Year 2015 - 2016:

- Small herd in Pasture 8
- Large herd in Pasture 2N

Note: Pasture UA-E is used as a Special Use Pasture (Spring 2016) and in the Small Herd Rotation (September 2016)