

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@ag.arizona.edu](mailto:gruyle@ag.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 prevent the separation of calves from cows during the move between pastures.

## Planned Livestock Grazing on the Santa Rita Experimental Range

01 November 2013 - 31 October 2014

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 2013 - 31 October 2014, and extended to December 2014 for planning purposes. Projected grazing use is based on our current best estimates of available forage and the commencement of summer rains. The projected grazing dates as well as 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@cal.s.arizona.edu](mailto:srer@cal.s.arizona.edu). Assume accuracy of projected dates to increase as those dates become closer. See the Grazing Management Map (below) for spatial details. Questions may be addressed to George Ruyle ([gruyle@ag.arizona.edu](mailto:gruyle@ag.arizona.edu)) or Mitch McClaran ([mccclaran@u.arizona.edu](mailto:mccclaran@u.arizona.edu)).

Last Plan Update: 31 Oct 2014

SRER Large Herd (Herd 1 on map)

Last Update: 31-Oct-2014

	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
2013	<b>2N</b> (4585)	540	21-Oct	19-Nov	30	3.5	499	28-Oct	29-Nov	33	3.6
	<b>2S</b> (1389)	540	20-Nov	03-Dec	14	5.4	451	30-Nov	15-Dec	16	5.2
	<b>12A</b> (995)	540	04-Dec	13-Dec	10	5.4	340	14-Dec	27-Dec	14	4.8
2014	<b>12C</b> (1886)	540	14-Dec	03-Jan	21	6.0	449	23-Dec	16-Jan	25	5.9
	<b>State*</b>	540	04-Jan	02-Feb	30		504	15-Jan	02-Mar	47	
	<b>Canoa S</b>	540	03-Feb	27-Feb	25		383	03-Mar	02-May	60	
	<b>Canoa N</b>	540	28-Feb	24-Mar	25						
	<b>12B</b> (4112)	540	25-Mar	14-Apr	21	2.8	242	15-Apr	12-May	28	1.6
	<b>12D</b> (1072)	540	15-Apr	21-Apr	07	3.5	06	01-Jul	21-Jul	21	0.1
	<b>3</b> (4104)	540	22-Apr	18-May	27	3.6	278	02 May	22-May	21	1.4
	<b>5S</b> (4699)	540	19-May	17-Jun	30	3.4	351	20 May	18-Jun	32	2.4
	<b>5 Mid</b> (3448)	540	18-Jun	08-Jul	21	3.3	365	19-Jun	16-Jul	28	3.0
	<b>5N</b> (2025)	540	09-Jul	18-Jul	10	2.7	170	14-Jul	07-Aug	25	2.1
	<b>15</b> (4217)	540	19-Jul	28-Jul	10	1.3	175	25-Jul	25-Aug	32	1.3
	<b>6B</b> (1677)	540	29-Jul	07-Aug	10	3.2	248	07-Aug	28-Aug	22	3.3
	<b>6D</b> (1978)	540	08-Aug	17-Aug	10	2.7	183	21-Aug	23-Sep	36	3.3
	<b>6A</b> (2686)	540	18-Aug	27-Aug	10	2.0	284	16-Sep	08-Oct	22	2.3
	<b>Helvetia North*</b>	540	Uncertain TBD				388	04-Sep	14-Sep	12	
	<b>Helvetia South*</b>	540	Uncertain TBD								
	<b>6E</b> (910)	540	28-Aug	06-Sep	10	5.9	250	02-Oct	21-Oct	20	5.5
	<b>2N</b> (4585)	540	07-Sep	06-Oct	30	3.5	388	22-Oct	31-Oct	18	1.5
	<b>2S</b> (1389)	540	07-Oct	16-Oct	10	3.9					
	<b>12A</b> (995)	540	17-Sep	26-Oct	10	5.4					
<b>12C</b> (1886)	540	27-Oct	16-Nov	21	6.0						
<b>State*</b>	540	17-Nov	16-Dec	30							

\* These pastures are not part of the Santa Rita Experimental Range.

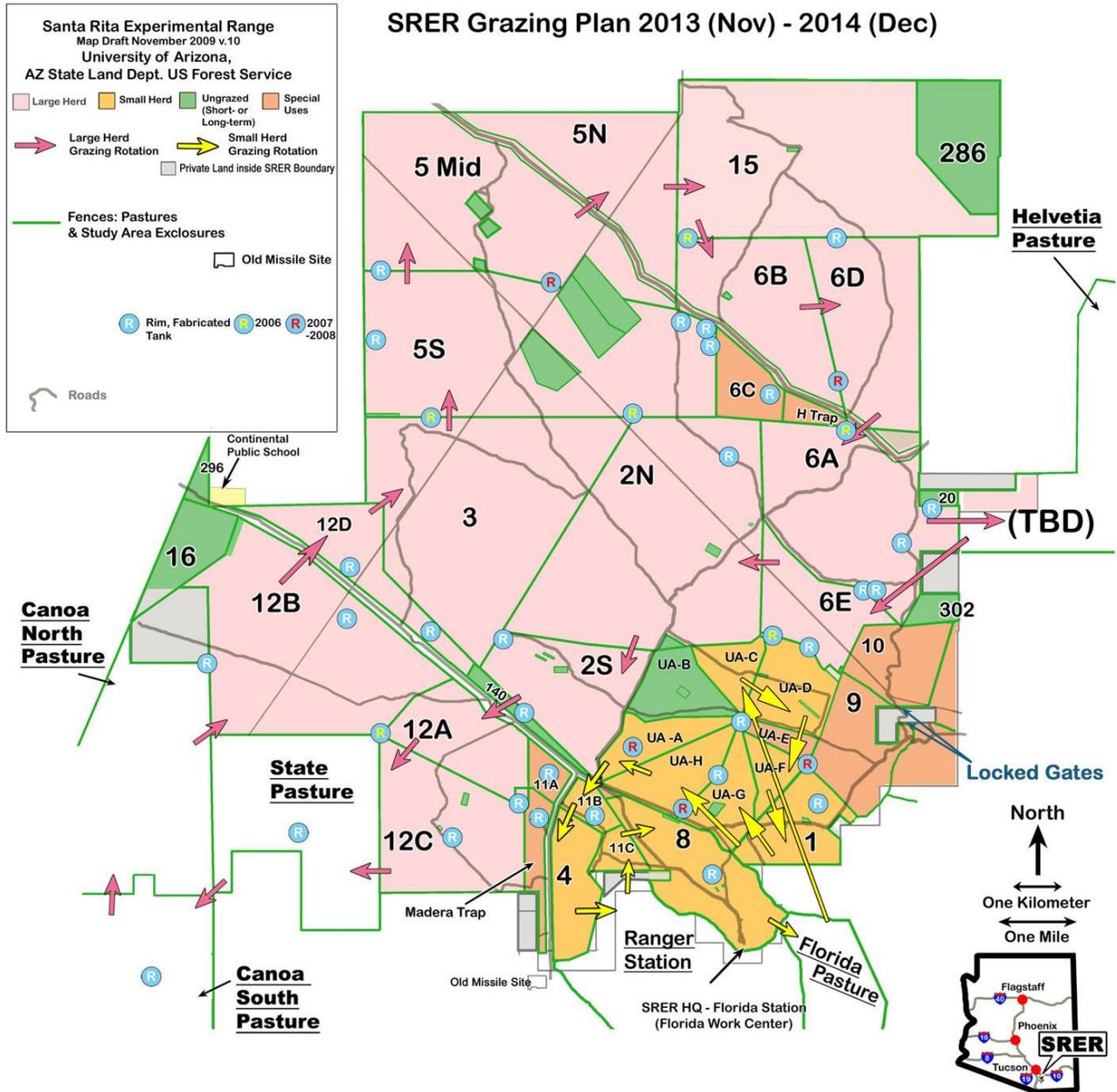
SRER Small Herd (Herd 2 on map)

Last Update: 31-Oct-2014

	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
2013	<b>1</b> (782)	85	01-Oct	19-Nov	50	5.4	70	01-Oct	01-Dec	62	5.5
	<b>UA-H</b> (453)	85	20-Nov	10-Dec	21	3.9	70	02-Dec	27-Dec	26	4.0
	<b>UA-A</b> (549)	85	11-Dec	31-Dec	21	3.3	50	28-Dec	28-Jan	32	3.0
2014	<b>11B</b> (212)	85	01-Jan	10-Jan	10	4.0	64	19-Jan	07-Feb	20	6.1
	<b>4</b> (670)	85	11-Jan	19-Feb	40	5.1	70	08-Feb	14-Mar	35	3.7
	<b>Forest Service Pasture*</b>	85	20-Feb	15-May	85		70	15-Mar	12-Aug	140	
	<b>11C</b> (214)	85	16-May	25-May	10	4.0	70	24-Jun	04-Jul	7	3.6
	<b>8</b> (815)	85	26-May	14-Jul	50	5.2	85	16-Aug	01-Sep	17	1.8
	<b>Forest Service Pasture*</b>	85	15-Jul	12-Sep	60						
	<b>UA-C</b> (365)	85	13-Sep	28-Sep	16	3.7	85	02-Sep	15-Sep	14	3.3
	<b>UA-D</b> (663)	85	29-Sep	14-Oct	16	2.0	85	16-Sep	02-Oct	17	2.2
	<b>UA-F</b> (336)	85	15-Oct	30-Oct	16	4.0	85	03-Oct	19-Oct	17	4.3
	<b>1</b> (782)	85	31-Oct	19-Dec	50	5.4	85	20-Oct	31-Oct	12	2.3
<b>UA-G</b> (441)	85	20-Dec	09-Jan	21	4.0						

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





Large herd moved into 2N Oct. 21, 2013  
 Small herd moved into 1 on Oct. 1, 2013