

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](mailto: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 prevent the separation of calves from cows during the move between pastures.

# Grazing on the Santa Rita Experimental Range

## Planned Livestock Grazing on the Santa Rita Experimental Range

01 November 2014 - 31 October 2015

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 2014 - 31 October 2015, and extended to December 2015 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](mailto: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](mailto:gruyle@cals.arizona.edu)) or Mitch McClaran ([mcclaran@u.arizona.edu](mailto:mcclaran@u.arizona.edu)).

Last Plan Update: 31 October 2015

SRER Large Herd (Herd 1 on map)

Last Update: 31-Oct-2015

	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
2014	<b>2N</b> (4585)	450	06-Oct	14-Nov	40	4.0	373	14-Oct	19-Nov	37	3.0
	<b>2S</b> (1389)	450	15-Nov	26-Nov	12	4.0	137	17-Nov	04-Dec	28	2.8
	<b>12A</b> (995)	450	27-Nov	06-Dec	10	4.5	161	25-Nov	15-Dec	21	3.4
	<b>12C</b> (1886)	450	07-Dec	19-Dec	13	3.0	233	04-Dec	02-Jan	30	3.7
2015	<b>State*</b> (2778)	450	20-Dec	23-Jan	35	5.7	385	22-Dec	03-Feb	44	6.1
	<b>Canoa S</b> (5513)	450	24-Jan	03-Apr	70	5.7	366	02-Jan	23-Apr	81	5.4
	<b>Canoa N *</b>	450									
	<b>12E</b> (2562)	450	12B split to create 12E Dec 2014				390	24-Apr	30-Apr	07	1.1
	<b>12B</b> (1610)	450	04-Apr	30-Apr	27	3.0	266	01 May	05-May	05	0.8
	<b>3</b> (4104)	450	01-May	30-May	30	3.3	390	04 May	03-Jun	31	2.9
	<b>5S</b> (4699)	450	31-May	02-Jul	33	3.2	302	03-Jun	08-Jul	36	2.3
	<b>5 Mid</b> (3448)	450	03-Jul	20-Jul	18	2.3	185	07-Jul	19-Aug	44	2.7
	<b>5N</b> (2025)	450	21-Jul	30-Jul	10	2.2	362	24-Jul	05-Aug	13	2.3
	<b>15</b> (4217)	450	31-Jul	09-Aug	10	1.1	379	05-Aug	20-Aug	16	1.4
	<b>6B</b> (1677)	450	10-Aug	19-Aug	10	2.7	404	19-Aug	02-Sep	15	3.6
	<b>6D</b> (1978)	450	20-Aug	29-Aug	10	2.3	341	02-Sep	17-Sep	16	2.8
	<b>6A</b> (2686)	450	30-Aug	08-Sep	10	1.7	351	14-Sep	30-Sep	12	1.6
	<b>Helvetia North*</b>	450	09-Sep	08-Oct	30		421	24-Sep	14-Oct	21	
	<b>Helvetia South*</b>	450	Uncertain TBD								
	<b>6E</b> (910)	450	09-Oct	18-Oct	10	4.9	385	14-Oct	21-Oct	08	3.4
	<b>2N</b> (4585)	450	19-Oct	27-Nov	40	4.0	43	21-Oct	31-Oct	11	1.1
<b>2S</b> (1389)											
<b>12A</b> (995)											
<b>12C</b> (1886)											
<b>State*</b>											

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

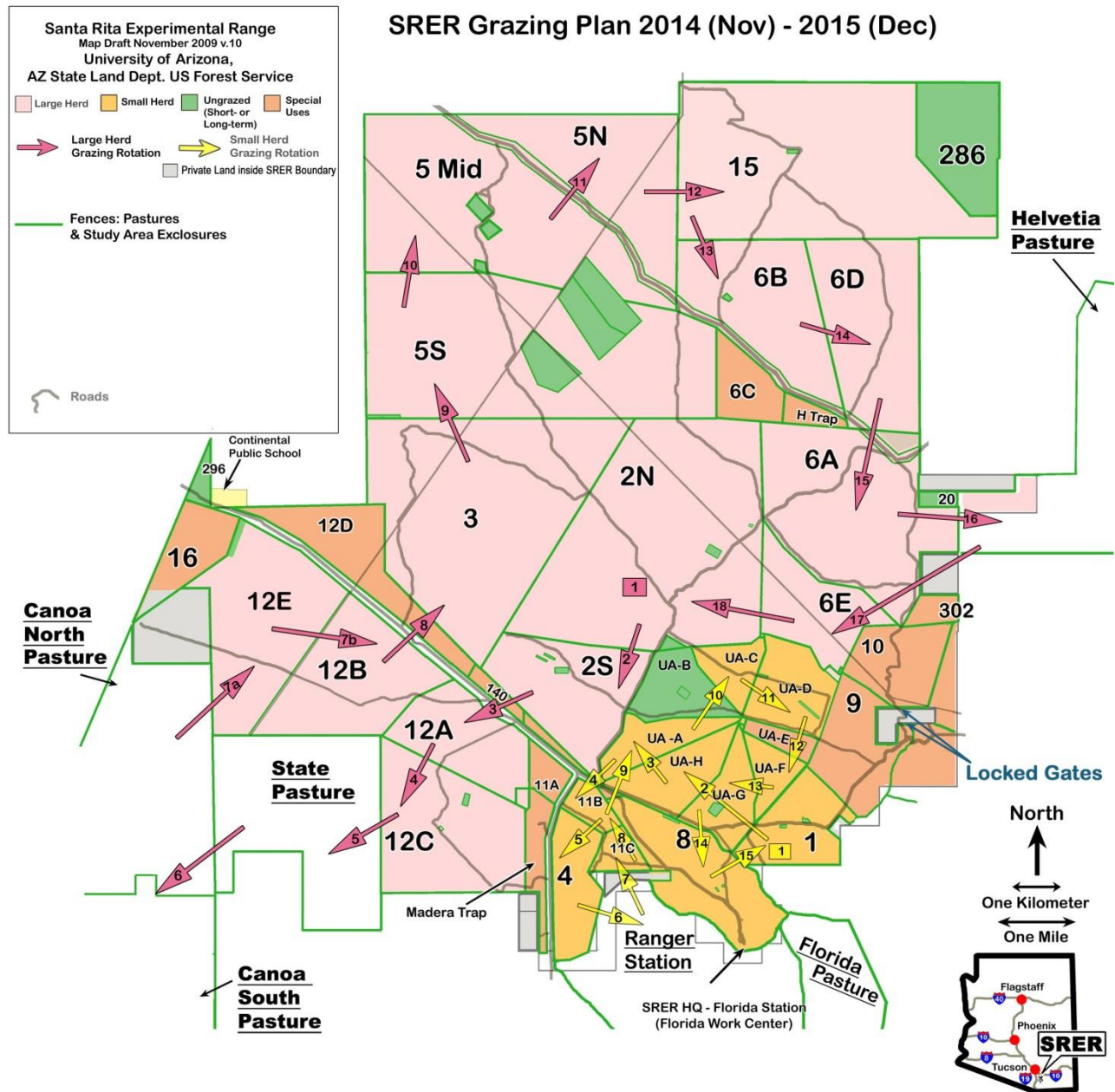
SRER Small Herd (Herd 2 on map)

Last Update: 31-Oct-2015

	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
2014	1 (782)	85	01-Nov	15-Dec	45	4.9	85	20-Oct	30-Nov	42	4.7
2015	UA-H (453)	85	16-Dec	02-Jan	18	3.4	67	06-Jan	04-Feb	30	4.4
	UA-A (549)	85	03-Jan	24-Jan	22	3.4	77	27-Jan	20-Feb	24	3.4
	11B (212)	85	25-Jan	03-Feb	10	4.0	85	28-Feb	09-Mar	10	4.0
	4 (670)	85	04-Feb	12-Mar	37	4.7	85	10-Mar	30-Apr	52	6.6
	Forest Service Pasture*	85	13-Mar	05-Jun	85		85	01 May	20-Jul	61	
	<del>11C (214)</del>	85	<del>06-Jun</del>	<del>15-Jun</del>	10	4.0					
	<del>8 (815)</del>	85	<del>16-Jun</del>	<del>20-Jul</del>	35	3.7					
	Forest Service Pasture*	85	24-Jul	18-Sep	60		Water Storage Failure Requires Change in Rotation (see below for changes)				
	<del>UA-C (365)</del>	85	<del>19-Sep</del>	<del>03-Oct</del>	15	3.5					
	<del>UA-D (357)</del>	85	<del>04-Oct</del>	<del>18-Oct</del>	15	3.6					
	<del>UA-F (336)</del>	85	<del>19-Oct</del>	<del>01-Nov</del>	14	3.5					
	UA-G (441)	85	02-Nov	19-Nov	18	3.5	85	29-Dec	05-Jan	8	1.5
	1 (782)	85	20-Nov	03-Jan	45	4.9					
	11C (214)	85	20-Jul	29-Jul	10	4.0	85	21-Jul	30-Jul	9	3.6
	11B (212)	85	29-Jul	30-Jul	01	0.4	81	30-Jul	30-Jul	1	0.4
UA-A (549)	85	31-Jul	09-Aug	10	1.5	81	31-Jul	10-Aug	11	1.6	
UA-C (365)	85	10-Aug	19-Aug	10	2.3	81	11-Aug	20-Aug	11	2.2	
UA-D (357)	85	20-Aug	29-Aug	10	2.4	81	21-Aug	03-Sep	14	3.2	
UA-F (336)	85	30-Aug	08-Sep	10	2.5	81	04-Sep	15-Sep	12	2.9	
UA-G (441)	85	09-Sep	18-Sep	10	1.9	81	16-Sep	29-Sep	14	2.6	
8 (815)	85	19-Sep	23-Oct	35	3.7						
1 (782)	85	19-Sep	22-Oct	35	3.8	81	30-Sep	31-Oct	32	3.3	
8 (815)	85	23-Oct	29-Nov	37	3.9						

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

Pasture (acres)	Use	Projected				Actual			
		Herd Size (AU's)	Start Date	End Date	Grazing Days	Herd Size (AU's)	Start Date	End Date	Grazing Days
<b>UA-B</b> (552)	Rest								
<b>UA-E</b> (423)	Bull calves	15	01-Feb	21-Feb	21	5	01-Nov	15-Nov	75
<b>6C</b> (427)	temporary								
<b>Huerfano Trap</b>	temporary								
<b>20</b>	Rest					22	01-Aug	01-Aug	22
<b>140</b> (154)	temporary								
<b>11A</b> (196)	temporary					2	25-Jul	31-Jul	7
<b>Madera Trap</b>	Bull calves	06	01-Mar	31-Mar	30	4	01-Mar	30-Jun	102
<b>16</b>	temporary								
<b>286</b>	Rest								
<b>9</b>	TBD								
<b>10</b>	TBD								
<b>12D</b> (423)	temporary								
<b>302</b>	temporary					5	01-Dec	31-Dec	155



Large herd moved into 2N Oct. 6, 2014  
 Small herd moved into 1 from UA-G ~Nov 1, 2014