

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 reduce the separation of calves from cows during the move between pastures.

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## Grazing on the Santa Rita Experimental Range Planned Livestock Grazing on the Santa Rita Experimental Range

01 November 2018 - 31 October 2019

Below are the projected livestock grazing days for the “large herd,” “small herd,” and “special pastures” of livestock on the Santa Rita Experimental Range for the grazing year 01 November 2018 - 31 October 2019, and extended to beyond October 2019 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 2019

SRER Large Herd (Herd 1 on map)

Last Update: 31-Oct-2019

	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
2018	<b>State*</b> (2778)	470	01-Oct	02-Nov	33	5.6	454	27-Sep	08-Nov	43	7.0
	<b>12C</b> (1886)	500	01-Nov	22-Nov	22	5.8	380	08-Nov	09-Dec	31	6.2
	<b>12A</b> (995)	500	23-Nov	24-Nov	2	1.0	139	03-Dec	17-Dec	15	2.1
	<b>2S</b> (1389)	500	25-Nov	04-Dec	10	3.6	310	13-Dec	26-Dec	14	3.1
	<b>2N</b> (4585)	500	05-Dec	13-Jan	40	4.4	282	24-Dec	14-Mar	81	5.0
2019	<b>6E</b> (910)	500	14-Jan	25-Jan	12	6.6	300	09-Feb	21-Feb	18	5.9
	<b>6A</b> (2686)	500	26-Jan	24-Feb	30	5.6	425	22-Feb	18-Mar	25	4.0
	<b>6D</b> (1978)	500	25-Feb	22-Mar	26	6.6	416	19-Mar	16-Apr	19	4.0
	<b>15</b> (4217)	500	23-Mar	11-Apr	20	2.4	433	15-Apr	07-May	23	2.4
	<b>6B</b> (1677)	500	12-Apr	23-Apr	12	3.6	427	07-May	21-May	15	3.8
	<b>5N</b> (2025)	500	24-Apr	07-May	14	3.5	500	25-May	31-May	07	1.7
	<b>5 Mid</b> (3448)	500	08-May	21-May	14	2.0	420	01-Jun	11-Jun	12	2.5
	<b>5S</b> (4699)	500	22-May	04-Jun	14	1.5	360	11-Jun	05-Jul	25	1.9
	<b>3</b> (4104)	500	05-Jun	18-Jun	14	1.7	361	28-Jun	08-Jul	11	1.0
	<b>12B</b> (1610)	500	19-Jun	28-Jun	10	2.0	439	07-Jul	16-Jul	10	2.8
	<b>12E</b> (2562)	500	29-Jun	05-Jul	7	2.2	436	16-Jul	23-Jul	8	1.4
	<b>Canoa S</b> (5513)	500	06-Jul	13-Sep	70	6.3	496	23-Jul	31-Aug	40	3.6
	<b>Canoa N</b> *	500									
	<b>State*</b> (2778)	500	14-Sep	18-Oct	35	6.3	497	01-Sep	31-Oct	30	
	<b>12C</b> (1886)	500	19-Oct	07-Nov	20	5.3					
	<b>12A</b> (995)	500	08-Nov	09-Nov	2	0.9					
<b>2S</b> (1389)	500	10-Nov	19-Nov	10	3.6						

\* 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-2019

	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
2018	<b>1</b> (782)	100	24-Sep	02-Nov	40	5.1	77	24-Sep	06-Nov	44	4.3
	<b>8</b> (815)	100	03-Nov	06-Jan	65	8.0	77	07-Nov	10-Feb	64	6.0
2019	<b>11C</b> (214)	100	07-Jan	16-Jan	10	4.7	80	11-Feb	22-Feb	12	4.5
	<b>4</b> (670)	100	17-Jan	17-Mar	60	9.0	80	23-Feb	25-Apr	62	7.4
							80	23-Jul	26-Jul	4	0.5
	<b>Forest Service Ranger Pasture*</b>	100	18-Mar	10-Jun	85		80	26-Apr	22-Jul	57	
	<b>11B</b> (212)	85	11-Jun	14-Jun	4	1.6	80	27-Jul	01-Aug	6	2.3
	<b>UA-A</b> (549)	85	15-Jun	10-Jul	26	4.0	80	02-Aug	13-Aug	12	1.8
	<b>UA-C</b> (365)	85	11-Jul	30-Jul	20	4.7	80	09-Sep	23-Sep	15	3.3
	<b>UA-D</b> (357)	85	31-Jul	09-Aug	10	2.4	80	24-Sep	05-Oct	12	4.3
							80	25-Oct	31-Oct	7	
	<b>UA-F</b> (336)	85	10-Aug	19-Aug	10	2.5	80	14-Aug	25-Aug	12	2.9
	<b>UA-G</b> (441)	85	20-Aug	29-Aug	10	1.9	80	26-Aug	8-Sep	14	2.5
	<b>UA-H</b> (453)	85	30-Aug	08-Sep	10	1.9	80	06-Oct	24-Oct	19	3.4
	<b>UA-A</b> (549)	85	09-Sep	18-Sep	10	1.9					
	<b>UA-E</b> (156)	85	19-Sep	23-Sep	5	2.7					
	<b>Private Pasture</b>	85	24-Sep	07-Oct	14						
<b>1</b> (782)	85	08-Oct	16-Nov	40	4.3						
<b>8</b> (815)	85	17-Nov	12-Jan	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

