

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) 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 ~500 animals will move through a combination of 18 pastures, 14 are located on the Santa Rita, and 1 on the Coronado National Forest, and 3 on Arizona State Lands. The small herd, ~60 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 2008 - 31 October 2009

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 2008 - 31 October 2009, and extended to mid-November 2009 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. 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) or Mitch McClaran (mcclaran@u.arizona.edu).

Last Plan Update: 31 October 2009

SRER Large Herd (Herd 1 on map)

Last Update: 31-Oct-2009

		Projected				Actual			
		Herd Size (AU's)	Start Date	End Date	Grazing Days	Herd Size (AU's)	Start Date	End Date	Grazing Days
2008	12C	500	29-Oct	03-Dec	35	382	01-Nov	03-Dec	33
	State*	500	03-Dec	07-Jan	35	408	14-Nov	06-Jan	54
2009	Canoa S*	500	07-Jan	31-Jan	24	522	07-Jan	30-Jan	23
	Canoa N*	500	31-Jan	12-Feb	12	523	31-Jan	13-Feb	14
	12B	500	12-Feb	12-Mar	28	519	14-Feb	11-Mar	26
	3	500	12-Mar	16-Apr	35	486	12-Mar	15-Apr	35
	5S	500	16-Apr	03-Jun	48	495	16-Apr	04-Jun	50
	5 Mid	500	03-Jun	01-Jul	28	214	05-Jun	30-Sep	73
	5N	500	01-Jul	20-Jul	20	304	03-Jul	21-Jul	29
	6B	500	20-Jun	30-Jul	10	450	22-Jul	01-Aug	11
	15	0	No grazing planned						
	6D	500	30-Jul	09-Aug	10	450	02 Aug	14-Aug	13
	6A	500	09-Aug	19-Aug	10	207	15-Aug	14-Sep	26
	Helvetia*	0	No grazing planned						
	6E	500	19-Aug	28-Aug	10	440	27-Aug	14-Sep	19
	2N	500	15-Sep	22-Oct	37	491	15-Sep	22-Oct	38
	2S	500	23-Oct	03-Nov	11	448	23-Oct	31-Oct	9
	12A	500	03-Nov	08-Nov	5				
	12C	500	09-Nov	14-Dec	35				
	State*	500	15-Dec	15-Jan	29				
	Canoa S*	500	16-Jan	10-Feb	24				

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

SRER Small Herd (Herd 2 on map)

Last Update: 31-Oct-2009

		Projected				Actual			
Pasture	Herd Size (AU's)	Start Date	End Date	Grazing Days	Herd Size (AU's)	Start Date	End Date	Grazing Days	
2008	1	40	20-Sep	08-Dec	80	40	01-Nov	08-Dec	38
	UA-G	28	20-Sep	10-Nov	40	28	01-Nov	10-Nov	10
	UA-H	28	10-Nov	08-Dec	29	28	11-Nov	08-Dec	28
	UA-A	66	09-Dec	26-Dec	17	68	09-Dec	27-Dec	19
2009	11B	63	26-Dec	10-Jan	15	68	28-Dec	11-Jan	15
	4	63	10-Jan	26-Feb	46	68	12-Jan	26-Feb	46
	11C	63	26-Feb	06-Mar	9	65	27-Feb	05-Mar	7
	8	63	06-Mar	15-May	70	68	06-Mar	16-May	72
	Ranger*	0	No grazing planned						
	Florida*	63	15-May	31-May	64	64	17-May	31-May	14
	1	63	01-Jun	19-Jun	19	44	01-Jun	18-Jun	18
	UA-D	63	20-Jun	20-Jul	31	64	19-Jun	20-Jul	32
	UA-F	63	21-Jul	30-Jul	10	64	21-Jul	03-Aug	14
	UA-G	63	31-Jul	09-Aug	10	42	04-Aug	18-Sep	21
	UA-H	63	10-Aug	19-Aug	10	32	15-Aug	27-Aug	39
	UA-A	63	20-Aug	29-Aug	10	33	28-Aug	24-Sep	35
	11B	63	30-Aug	08-Sep	10	60	25-Sep	27-Sep	3
	4	63	09-Sep	24-Oct	46	60	28-Sep	31-Oct	34
11C	63	25-Oct	02-Nov	9					

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

SRER Special Herds and Other Pastures

Last Update: 31-Oct-2009

Pasture	Use	Projected				Actual			
		Herd Size (AU's)	Start Date	End Date	Grazing Days	Herd Size (AU's)	Start Date	End Date	Grazing Days
UA - B	rest	0			0				
UA - C	rest	0			0				
UA - D	rest	0			0				
UA - E	rest	0			0				
6C	temporary								
Huerfano Trap	temporary					8	01-Aug	31-Aug	6
20	temporary								
140	temporary					26	01-Feb	31-Mar	19
11A	temporary								
12D	bulls	20	01-Jan-09	31-Aug-09	241	16	01-Nov	31-Aug	178
Madera Trap	bull calves	10	01-Mar-09	30-Sep-09	180	6	01-Apr	30-Apr	30
16	Deferred	0			0				
286	Deferred	0			0				
302	Deferred	0			0				

Map of Livestock Grazing Patterns for Two Herds on Santa Rita Experimental Range

