Livestock Grazing Management & Research Activities

Starting in November 2006, 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. The 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.)

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 17 pastures located on the Santa Rita, Coronado National Forest, and Arizona State Lands. The small herd, ~60 animals will move through 9 pastures all 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.

Planned Livestock Grazing on the Santa Rita Experimental Range

1 November 2006-31 October 2007

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 1 November 2006 - 31 October 2007, and extended to 31 December 2007 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 2007

SRER Large Herd (Herd 1 on map) Last Update: 31-Oct-2007

		Projected				Actual			
	Pasture	Herd Size (AU's)	Start Date	End Date	Grazing Days	Herd Size (AU's)	Start Date	End Date	Grazing Days
2006	5S	500	1-Nov	28-Nov	28	~434	3-Nov	28-Nov	25
	5N	500	29-Nov	26-Dec	28	~492	29-Nov	26-Dec	28
2007	6B	500	27-Dec	16-Jan	21	~460	27-Dec	13-Jan	18
	15	500	17-Jan	3-Feb	18	~459	14-Jan	2-Feb	20
	6D	500	4-Feb	28-Feb	25	460	3-Feb	28-Feb	26
	6A	500	1-Mar	27-Mar	27	~350	1-Mar	18-Apr	49
	Helvetia *	500	28-Mar	14-Apr	18	450	29-Mar	14-Apr	17
	6E	500	15-Apr	23-Apr	9	~350	15-Apr	29-Apr	15
	2N	500	23-Apr	24-Apr	1	25	6-May	14-May	9
	2S	500	24-Apr	5-May	12	~435	24-Apr	11-May	18
	12A	500	6-May	14-May	9	448	15-May	22-May	7
	12C	500	15-May	29-May	15	450	23-May	6-Jun	15
	State *	500	30-May	1-Jul	33	~460	7-Jun	7-Jul	31
	Canoa S *	500	2-Jul	11-Jul	10	~450	8-Jul	5-Aug	29
	Canoa N *	500	12-Jul	21-Jul	10	Not split from Canoa S			
	12B	500	22-Jul	1-Aug	10	457	6-Aug	16-Aug	11
	3	500	2-Aug	11-Aug	10	~400	17-Aug	31-Aug	14
	5S	500	12-Aug	23-Aug	10	~300	26-Aug	21-Sep	7
	5 Mid					Not yet split from 5N			
	5N	500	24-Aug	15-Sep	23	~450	1-Sep	20-Sep	20
	6B	500	16-Sep	2-Oct	17	~500	21-Sep	07-Oct	17
	15	500	3-Oct	18-Oct	16	517	08-Oct	21-Oct	14
	6D	500	19-Oct	7-Nov	20	517	22-Oct	31-Oct	10
	6A	500	8-Nov	29-Nov	22				

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

SRER Small Herd (Herd 2 on map) Last Update: 31-Oct-2007

		Projected				Actual			
	Pasture	Herd Size (AU's)	Start Date	End Date	Grazing Days	Herd Size (AU's)	Start Date	End Date	Grazing Days
2006	UA - H	63	1-Nov	19-Nov	19	~47	1-Nov	18-Nov	18
	UA - A	63	20-Nov	12-Dec	23	~40	19-Nov	12-Dec	24
	11B	63	13-Dec	25-Dec	13	~42	13-Dec	25-Dec	13
2007	4	63	26-Dec	9-Mar	74	~45	26-Dec	8-Mar	72
	11C	63	10-Mar	17-Mar	8	~57	9-Mar	18-Mar	10
	8	63	18-Mar	20-May	64	63	19-Mar	18-May	61
	1	63	21-May	15-Jun	26	~35	19-May	6-Jul	31
	UA - F	63	16-Jun	1-Jul	15	63	15-Jun	20-Aug	17
	UA - G	63	2-Jul	11-Jul	10	63	29-Jul	7-Aug	10
	UA - H	63	12-Jul	21-Jul	10	63	7-Jul	17-Jul	11
	UA - A	63	22-Jul	31-Jul	10	63	18-Jul	28-Jul	11
	11B	63	1-Aug	10-Aug	10	~40	30-Aug	31-Aug	2
	4	63	11-Aug	20-Aug	10	64	1-Sep	31-Oct	61
	11C	63	21-Aug	30-Aug	10				
	8	63	1-Sep	3-Nov	64				

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

SRER Special Herds and Other Pastures Last Update: 31-Oct-2007

		Projected				Actual			
Pasture	Use	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	5			6
UA - C	rest	0			0				
UA - D	rest	0			0				
UA - E	rest	0			0				
6C	temporary								
Huerfano Trap	temporary					3	1-Mar	30-Mar	4
20	temporary								
140	temporary					7	1-Aug	31-Oct	25
11A	temporary								
12D	bulls	25	01-Jan-07	31-Aug-07	240	~20	28-Dec	31-Jul	205
Madera Trap	bull calves	20	01-Mar-07	30-Sep-07	180	~10	25-Jan	30-Sep	218
16	rest	0			0				
286	rest	0			0				
302	rest	0			0				

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