

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.

The scant rainfall in summer 2009 required adjustments in herd size and length of stay in the pastures over the 2009-2010 winter. About 40 fewer animals are in the Large Herd this year compared to last, the Small Herd length of stay was reduced about 25% compared to last year.

Planned Livestock Grazing on the Santa Rita Experimental Range

01 November 2009 - 31 October 2010

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 2009 - 31 October 2010, 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: 30 November 2010

SRER Large Herd (Herd 1 on map)

Last Update: 30-Nov-2010

		Projected				Actual			
		Herd Size (AU's)	Start Date	End Date	Grazing Days	Herd Size (AU's)	Start Date	End Date	Grazing Days
2009	Pasture								
	2S	460	23-Oct	03-Nov	11	403	23-Oct	03-Nov	12
	12A	460	04-Nov	08-Nov	5	292	01-Nov	06-Nov	6
	12C	460	09-Nov	03-Dec	25	418	05-Nov	03-Dec	28
	State*	460	04-Dec	26-Jan	54	443	04-Dec	27-Jan	59
2010	Canoa S*	460	27-Jan	18-Feb	23	416	28-Jan	28-Feb	32
	Canoa N*	460	19-Feb	04-Mar	14	455	01-Mar	20-Mar	20
	12B	460	05-Mar	30-Mar	26	181	21-Mar	19-May	60
	3	460	31-Mar	04-May	35	276	21-Apr	11-Jun	52
	5S	460	05-May	14-Jun	41	350	27-May	15-Jul	50
	5 Mid	460	15-Jun	15-Jul	31	262	12-Jul	21-Aug	43
	5N	460	16-Jul	25-Jul	10	239	08-Aug	30-Aug	23
	6B	460	26-Jul	04-Aug	10	321	22-Aug	07-Sep	16
	15	460	05-Aug	14-Aug	10	396	05-Sep	16-Sep	12
	6D	460	15-Aug	24-Aug	10	395	17-Sep	28-Sep	12
	6A	460	25-Aug	03-Sep	10	418	12-Oct	04-Nov	24
	Helvetia*	460	04-Sep	11-Oct	38	320	29-Sep	11-Oct	13
	6E	460	12-Oct	25-Oct	14	420	05-Nov	18-Nov	14
	2N	460	26-Oct	01-Dec	37	420	19-Nov	30-Nov	12

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

SRER Small Herd (Herd 2 on map)

Last Update: 30-Nov-2010

		Projected				Actual			
Pasture	Herd Size (AU's)	Start Date	End Date	Grazing Days	Herd Size (AU's)	Start Date	End Date	Grazing Days	
2009	4	63	28-Sep	20-Nov	54	60	28-Sep	21-Nov	55
	Ranger*	63	21-Nov	27-Jan	68	60	22-Nov	26-Jan	66
2010	11C	63	28-Jan	02-Feb	6	59	27-Jan	03-Feb	6
	8	63	03-Jan	27-Mar	53	34	04-Feb	30-Apr	86
	Florida*	No grazing planned							
	1	63	28-Mar	26-May	60	56	09-Apr	08-Jun	61
	UA-D	63	27-May	18-Jun	23	52	09-Jun	10-Jul	31
	UA-F	63	19-Jun	29-Jun	11	47	11-Jul	27-Jul	16
	UA-G	63	30-Jun	25-Jul	26	22	28-Jul	27-Aug	31
	UA-H	63	26-Jul	04-Aug	10	49	28-Aug	15-Sep	19
	UA-A	63	05-Aug	14-Aug	10	34	16-Sep	09-Oct	24
	11B	63	15-Aug	24-Aug	10	68	10-Oct	24-Oct	15
	4	63	25-Aug	03-Sep	10	21	25-Oct	30-Nov	37
	11C	63	04-Sep	13-Sep	10				
	8	63	14-Sep	22-Nov	70				
	Ranger*	No grazing planned							
	Florida*	63	23-Nov	21-Jan	60				
1	63								

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

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

SRER: Grazing Plan 2009 (Nov) - 2010 (Oct)

