

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](mailto: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.

This year we changed the sequence of pastures for the Large Herd to prevent re-grazing at the same time of year. To perform this change, the Large Herd will bypass the southern pastures, and move west from Pasture 2S into Pasture 3. As a result, the northern pastures will be grazed before the summer season, and the southern pastures will be grazed in the summer season. This reverses the pattern in place since 2006.

## Planned Livestock Grazing on the Santa Rita Experimental Range

01 November 2010 - 31 October 2011

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 2010 - 31 October 2011, and extended to December 2011 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](mailto:gruyle@ag.arizona.edu)) or Mitch McClaran ([mcclaran@u.arizona.edu](mailto:mcclaran@u.arizona.edu)).

Last Plan Update: 30 September 2011

SRER Large Herd (Herd 1 on map)

Last Update: 30-Sept-2011

		Projected				Actual			
		Herd Size (AU's)	Start Date	End Date	Grazing Days	Herd Size (AU's)	Start Date	End Date	Grazing Days
2010	Pasture 6A	460	25-Aug	03-Sep	10	460	25-Aug	03-Sep	10
	6E	420	05-Nov	18-Nov	14	420	05-Nov	18-Nov	14
	2N	420	19-Nov	31-Dec	43	402	19-Nov	05-Jan	50
2011	2S	460	01-Jan	18-Jan	18	396	06-Jan	26-Jan	24
	3	460	19-Jan	17-Feb	30	441	27-Jan	03-Mar	34
	5S	460	18-Feb	30-Mar	41	440	04-Mar	14-Apr	42
	5 Mid	460	31-Mar	09-May	40	320	12-Apr	08-Jun	58
	5N	460	10-May	24-May	15	247	23-May	21-Jun	30
	6B	460	25-May	08-Jun	15	129	09-Jun	31-Jul	53
	6D	460	09-Jun	04-Jul	26	218	22-Jun	31-Jul	40
	6A	460	05-Jul	14-Jul	10	111	12-Jul	09-Sep	60
	Helvetia*	460	15-Jul	24-Jul	10	426	26-Jul	31-Aug	37
	6E	460	25-Jul	03-Aug	10	158	01-Sep	30-Sep	30
	2N	460	04-Aug	13-Aug	10	235	10-Sep	30-Sep	21
	2S	460	14-Aug	23-Aug	10				
	12A	460	24-Aug	02-Sep	10				
	12C	460	03-Sep	27-Dec	25				
	State*	460	28-Sep	20-Nov	54				
	Canoa S*	460	21-Nov	13-Dec	23				
	Canoa N*	460	14-Dec	27-Dec	14				

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

SRER Small Herd (Herd 2 on map)

Last Update: 30-Sept-2011

	Pasture	Projected				Actual			
		Herd Size (AU's)	Start Date	End Date	Grazing Days	Herd Size (AU's)	Start Date	End Date	Grazing Days
2010	11B	68	25-Oct	30-Nov	37	68	10-Oct	24-Oct	15
	4	21	01-Dec	20-Dec	20	14	25-Oct	25-Jan	93
2011	11C	63	21-Dec	28-Dec	8				
	8	63	29-Dec	08-Mar	70	65	02-Mar	13-May	72
	Ranger*	<b>No Grazing Planned</b>							
	Forest*	63	09-Mar	17-May	70	56	10-May	04-Sep	117
	1	63	18-May	16-Jul	60	28	24-Jul	14-Sep	53
	UA-D	63	17-Jul	26-Jul	10	65	15-Sep	30-Sep	16
	UA-F	63	27-Jul	05-Aug	10				
	UA-G	63	06-Aug	15-Aug	10				
	UA-H	63	16-Aug	25-Aug	10				
	UA-A	63	26-Aug	04-Sep	10				
	11B	63	05-Sep	14-Sep	10				
	4	63	15-Sep	03-Nov	50				
	11C	63	04-Nov	11-Nov	10				
	8	63	12-Nov	20-Jan	70				

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