Grazing on the Santa Rita Experimental Range Livestock Grazing Management & Research Activities

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 ~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 prevent the separation of calves from cows during the move between pastures.

Grazing on the Santa Rita Experimental Range page 2 of 5 Planned Livestock Grazing on the Santa Rita Experimental Range 01 November 2012 - 31 October 2013

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 2012 - 31 October 2013, and extended to December 2013 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 Update: 31-Oct-2013

Last Plan Update: 31 October 2013

SRER Large Herd (Herd 1 on map)

Projected Actual Herd Herd Start End Grazing Start End Grazing Size Size **Pasture** Date Date Days Date Date Days (AU's) (AU's) (acres) 2N (4585) 2012 540 30-Oct 18-Dec 50 467 30-Oct 18-Dec 50 **2S** (1389) 540 19-Dec 02-Jan 15 463 15-Dec 09-Jan 25 12A (995) 540 12-Jan 10 399 07-Jan 03-Jan 21-Jan 15 **12C** (1886) 01-Feb 20 13-Feb 26 2013 540 13-Jan 448 19-Jan State* 52 540 02-Feb 04-Mar 30 404 11-Feb 05-Apr Canoa S* 540 05-Mar 03-Apr 30 481 23-Mar 14-May 53 Canoa N* 540 04-Apr 03-May 30 Canoa pastures not yet split 12B (4112) 540 04-May 07-Jun 35 443 13-May 10-Jun 27 **12D** (1072) 540 17-Jun 10 0 08-Jun 0 3 (4104) 540 18-Jun 17-Jul 10 477 07-Jun 09-Jul 33 **5S** (4699) 540 18-Jul 27-Jul 10 445 09-Jul 21-Jul 13 **5 Mid** (3448) 540 28-Jul 07-Aug 10 175 19-Jul 16-Aug 29 14-Aug 5N (2025) 540 08-Aug 17-Aug 10 407 28-Jul 16 **6B** (1677) 540 18-Aug 27-Aug 10 507 26-Aug 03-Sep 09 14-Sep 10 **15** (4217) 540 05-Sep 261 12-Aug 06-Sep 26 **6D** (1978) 540 15-Sep 29-Sep 15 453 04-Sep 17-Sep 14 13-Oct 6A (2686) 30-Oct 26 540 15 508 18-Sep 13-Oct Helvetia 540 14-Oct 17-Nov 35 0 0 North* Helvetia 540 0 0 South* **6E** (910) 540 18-Nov 02-Dec 15 505 14-Oct 23-Oct 10 **2N** (*4585*) 508 28-Oct 04 31-Oct

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

Last Update: 31-Oct-2013

SRER Small Herd (Herd 2 on map)

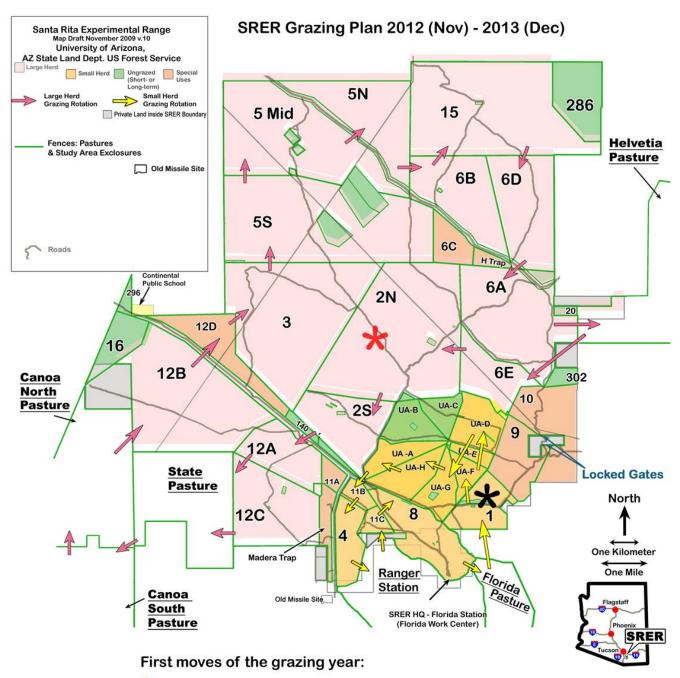
Projected Actual Herd Herd End **Pasture** Start Grazing Size Start End Grazing Size Date (acres) (AU's) Date Days (AU's) Date Date Days 2012 70 15-Nov 17-Sep 17-Sep 60 70 16-Nov 61 (782)UA-F 70 16-Nov 30-Nov 15 70 17-Nov 08-Dec 22 (336)UA-D 70 01-Dec 20-Dec 20 70 09-Dec 03-Jan 26 (663)2013 **UA-G** 21-Dec 14-Jan 70 25 70 04-Jan 30-Jan 27 (441)UA-H 70 09-Feb 15-Jan 25 70 31-Jan 26-Feb 27 (453)UA-A 70 10-Feb 06-Mar 25 70 27-Feb 25-Mar 27 (549)11-B 70 07-Mar 16-Mar 10 70 26-Mar 04-Apr 10 (212)4 70 17-Mar 05-May 50 70 05-Apr 26-May 52 (670)**Forest** Service 70 06-May 14-Jul 70 70 27-May 16-Jul 51 Pasture* 11C 70 15-Jul 24-Jul 10 70 17-Jul 26-Jul 10 (214)8 70 25-Jul 03-Aug 10 70 27-Jul 10-Aug 14 (815)**Forest Service** 70 04-Aug 12-Oct 70 Pasture* 1 70 13-Oct 01-Dec 01-Oct 31-Oct 50 70 31 (782)UA-G Not planned, Forest Service pasture 70 23-Aug 13 11-Aug (441)received too little rain UA-D Not planned. Forest Service pasture 70 24-Aug 31-Aug 80 (663)received too little rain UA-F Not planned, Forest Service pasture 70 06-Sep 30-Sep 25 (336)received too little rain

^{*} These pastures are not part of the Santa Rita Experimental Range. Forest Service Pastures include Ranger and Florida pastures.

Last Update: 31-Oct-2013

SRER Special Herds and Other Pastures

		Projected				Actual			
Pasture (acres)	Use	Herd Size (AU's)	Start Date	End Date	Grazing Days	Herd Size (AU's)	Start Date	End Date	Grazing Days
UA-B (552)	Rest								
UA-C (365)	Rest								
UA-E (<i>156</i>)	TBD								
6C (427)	temporary								
Huerfano Trap	temporary								
20	Rest								
140 (<i>154</i>)	Rest								
11A (<i>196</i>)	temporary					4	01-Nov	30-Apr	73
12D (1072)	Bulls					4	01-Feb	06-Feb	6
Madera Trap	Bull calves					7	01-May	31-Jul	24
16	Rest								
286	Rest								
302	Rest								



- * Large herd from 2N to 2S
- * Small herd from 1 to UA-F