



## **Ranching For Profit**

*Healthy Land, Happy Families & Profitable Businesses*

### **Sally Joins Our Team!**

We are excited to announce that on July 1 Sally Silvia joined RMC as our new Executive Link Coordinator. We know you'll enjoy meeting Sally and will benefit from her management of the EL and other alumni programs.

Born in Oklahoma, raised in Wyoming and having lived in Peru, Brazil and Germany, Sally has a passion for interaction with people from all backgrounds. She has one of the most diverse backgrounds of anyone I've ever met, with education in fields such as electronics, Russian and investments. Sally has worked the last 7 years with the brokerage firm of Edward Jones where she was a registered representative and served as advisor to over 700 households and managed more than \$40 million in assets. Her background also includes serving in the Air Force as a Russian linguist, working with Eastman Kodak as a field engineer and assisting in the day to day operation of a hearing aid center. Sally has one daughter and lives with her husband, Dan, in Suisun City, California. With her knowledge and skills, her heart for service and love of learning, we are delighted to have her as part of our team.

### **Pivotal Decisions**

Some of you have heard me talk about grazing under a center-pivot irrigation system. There are three issues:

1. Money. The numbers I've seen show that the capital cost of developing center pivots and the maintenance costs to keep them running make most pivots questionable economic investments at best. I've never seen a pivot system that came close to the 100% return on capital principle. It is another story when the pivot is already installed. If someone else sunk the capital into the system, operating it may pencil out, however, sometimes it makes more sense to sell the hardware (fixed asset) and put it in something that makes money (working capital).
2. Sustainability. Like an ostrich with its head in the sand, there are thousands of farmers and ranchers content to draw down aquifers and spend more money to sink wells deeper and deeper, ignoring the inevitable time when the groundwater is gone. There are also issues of water quality and the impact on soils. One only has to look at the San Joaquin valley and the Kesterson reservoir to understand the negative impacts irrigation can have on soil.
3. Management. The third issue that comes up is how the heck do you manage grazing under one of these things? How do you fence them and move livestock through them?

I just returned from a trip where I saw two innovative designs that overcome some of the problems with managing livestock in center pivots. Even if you don't have pivots or don't irrigate at all for that matter, it is the approach to innovation that is the key message of this story.

### **Hit It Head On**

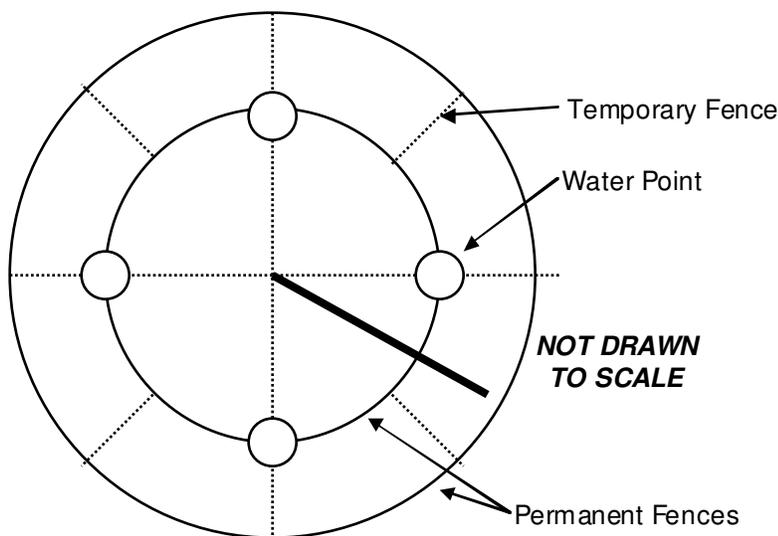
We held a KIT day at Rex & Brad Radtke's operation last year. They lease several irrigated pastures split into several paddocks. They use a variety of irrigation methods but have a lot of pasture under center pivots. Each pivot was split into 4 paddocks meeting at a small cell center around the pivot

tower. They were having a problem with trough space at the center. It didn't help that a float valve wasn't working properly and the trough was overflowing. The float is simple enough to fix, but the bigger issue was water storage and trough space at the center. They could replace the trough with a bigger one, but because of the size of the pivot tower, they would have had to increase the size of the cell center. To increase the trough size or add additional troughs, they would have to expand the center. That would mean digging up and rebuilding the braces, and creating a larger center which would invite loafing and nutrient concentration. We asked how we could hit the problem head on, or avoid it entirely. Even though no one attending had ever seen a pivot designed like this, someone suggested that Rex and Brad build a water trough encircling the pivot tower at the center. Rex and Brad have now installed three like this and were kind enough to send me this picture. I visited them recently and it seemed to be working great.



**Avoid It Entirely**

A very different design that avoids the conflict of cattle at the center completely is a design I first saw drawn by Merritt Moore of the Far West EL chapter. Merritt was looking for design ideas for a grazing system under a pivot he had. Hank Spurlock suggested "concentric fences" paralleling the pivot wheels. Merritt took the idea and drew a layout like the one below. Independently, at the Circle Pi Ranch in Salmon, ID, Troy Olson had actually built one which I saw at a KIT day last month.



Working with Jim Gerrish, who will be speaking at our joint EL meeting this summer in Riverton, Wyoming, Troy built a permanent electric fence paralleling the 6<sup>th</sup> wheel track of the pivot. Using temporary electric fence, Troy breaks the pivot into 12 paddocks, 4 on the interior and 8 on the exterior. This pivot is managed along with a larger, adjacent pivot creating a total of 28 paddocks for the herd. While the design that Brad and Rex Radtke used was very different from Troy Olson's design, they both applied the same principle:

When you have a constraint, hit it head on or avoid it entirely. Brad and Rex hit the problem of water at the center head on. Troy avoided it entirely.

**Calculating Your Own Carrying Capacity Benchmark in Relation to Rainfall**

Just as economic and financial benchmarks are needed to track the progress of your business, we also need a way of accurately tracking carrying capacity. Cows are a lot bigger today than they were just a couple of decades ago. That means that if a ranch that carried a cow on 20 acres 25 years ago, today still carries a cow on 20 acres, they were either under-stocked before, are over-stocked

now, or there has been a dramatic increase in carrying capacity. Just counting cows doesn't cut it. Our challenge is to find simple, objective indicators that can be easily measured with precision.

At the Ranching For Profit School you were exposed to something called "*Stock Days per Acre per Inch of Rain*" (SDA/1" Rain) as a way of anticipating drought. Our Australian colleagues use SDA/1" Rain to benchmark a property's carrying capacity and the effectiveness of the water cycle. They report that their projections using this tool have been "spot on."

Creating your SDA/1" Rain benchmark is simple. To establish the initial carrying capacity benchmark for your ranch you'll need to use historical carrying capacities and average rainfalls. Here's how to do it.

- A. Calculate your long term average carrying capacity = \_\_\_\_\_ Acre/SAU\*
- B. Divide 365 days by \_\_\_\_\_ Acre/SAU = \_\_\_\_\_ Stock Days/Ac. (SDA)
- C. Calculate average annual rainfall = \_\_\_\_\_ Inches
- D. Divide B by C. Your benchmark SDA/1" rain = \_\_\_\_\_ SDA/1" rain

\*Use the SAU values in your Ranching For Profit School notes.

**Sample Calculation:**

If the long term carrying capacity is 20 acres/SAU and the average rainfall is 12 inches then:

$$365 \text{ days} \div 20 \text{ Ac./SAU} = 18.25 \text{ SDA} \qquad 18.25 \text{ SDA} \div 12" \text{ rain} = 1.52 \text{ SDA/1" rain}$$

The grazing chart you received at the school has a series of rows to help you calculate SDA/1" rain on a monthly basis. You can then compare the benchmark for carrying capacity/1" rain with the actual stocking rate/ 1" rain shown on your chart. If you have not started using a grazing chart, your benchmark can be a useful tool to help match stocking rate to carrying capacity at various times throughout the year.

Once you've created this starting point, keep track of the 12 month rolling totals for Stock Days/Acre and rainfall. It won't take you 5 minutes a month and it will help you anticipate drought and document the effectiveness of the water cycle on your property.

**How Do You Use This?**

Let's say you have used the above process and when you calculated your carrying capacity it came to 1.52 SDA/1" rain. In an average rainfall year (12") a 500 acre paddock should support 9,120 Stock Days of grazing:

$$1.52 \text{ SDA/1" rain} \times 12" \text{ rain} \times 500 \text{ acres} = 9,120 \text{ Stock Days of Grazing}$$

If at the end of the growing period your past 12 months of rainfall was only 8 inches the pasture's carrying capacity will only be about 6,835 Stock Days:

$$1.52 \text{ SDA/1" rain} \times 8" \text{ rain} \times 500 \text{ acres} = 6,080 \text{ Stock Days of Grazing}$$

Most ranchers I've met overstock in drought. I've heard many say things like "*I've only got half my normal grass so I destocked by 25%.*" That means that they are 50% overstocked! Remember, the goal should be to match the stocking rate to the carrying capacity. This tool can project the approximate carrying capacity in wet and dry years and can alert you to possible overstocking during the non-growing season.

**Tulsa Time**

The Ranching For Profit School July 24-30 in Tulsa may be just the refresher you need to brush up and move forward. You can enroll on-line by visiting [www.ranchingforprofit.com](http://www.ranchingforprofit.com).

If you have family, friends, neighbors and colleagues that would benefit from participating in the school the most expedient way for them to learn about us is to visit our web site. If you'd like to give us their names and addresses we'd be glad to send them our complete information packet.

**New Course**

RMC is offering a new course. It is a two day course focusing on the economic principles we teach at the Ranching For Profit School. It's called the RFP Economic Short Course and the first offering will be this fall in Virginia. For more information, call or Email us.

**UPCOMING RANCHING FOR PROFIT EVENTS**

<b>Ranching For Profit Schools</b> <i>It is still only \$100 USD (\$200 CAD) to repeat the school.</i>	
Tulsa, OK, July 24-30, 2005	Colorado Springs, CO, Dec. 4-10, 2005
Boise, ID, Jan. 8-14, 2006	Billings, MT, Jan. 15-21, 2006
<b>Ranching For Profit Economic Short Course</b>	
Charlottesville, VA, Sept. 28-29, 2005	
<b>Executive Link Meetings</b>	
<i>Joint Meeting of all four Executive Link Chapters, July 18-21, 2005, Riverton, WY</i>	

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*We are in the business of putting profit into agriculture!*

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