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USING RESERVE HERD DAYS IN ROTATIONAL STOCKING

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Rotational stocking (grazing) units range from very low paddock numbers to the very high paddock numbers and from the very basic managed to the very highly managed unit. In virtually all units the managers have some form of management style and guidelines. In the last issue of The Forage Leader, I mentioned the use of a technique "Reserve Herd Days" which is a technique that provides management guidelines for the grazing unit managers. We will discuss that technique in more detail in this issue.

Many years ago, as we managed grazing units for ourselves and consulted with others (often by phone or letter), we needed a technique to judge forage reserves (availability), forage flow and other things. The technique needed to be quick, easy, grazier friendly, sufficiently accurate and easy to determine in the field or in a conversation over the phone. Thus, the RHD technique evolved for us. We have successfully used the RHD technique to help manage forage and livestock on the Controlled Rotational Grazing Unit near Ardmore for many years. Hopefully this information will make some sense and be helpful to other graziers, consultants and researchers.

Reserve Herd Days (RHD) is a measurement in days of reserve forage for a given herd of livestock on the acreage in consideration. The basic purpose is to determine the days of forage reserve (availability) for a particular herd on a particular area of forage at a given time. The rest of this article will illustrate some of the various reasons and functions for RHD.

It has been said, "A person must measure in order to manage." RHD is a measurement and the readings of that measurement are used to make grazing and livestock management decisions. The readings must be used to be useful. And, when the long-term RHD parameters of a given unit are known, the future readings for years to come have more meaning.

RHD can be determined for any unit. It is much easier to tally the information in a rotationally stocked unit than a continuously stocked unit. It is simply easier to tally RHD from individual smaller paddocks than on a relatively large single paddock. RHD is also more easily determined by the usual manager, rather than a stranger to the unit. The manager has experience on the unit as an observer and can more easily and accurately determine the RHD based upon that experience of how fast the herd utilizes given paddock forages, etc. But, anyone can do it.

There are several methods to make the RHD determinations: (1) visual, (2) calculated, and (3) measured.

The grazier will commonly use the visual method of RHD readings because it is the quickest and easiest. They can quickly observe the accuracy of the estimate by frequent monitoring of the unit and they can update it immediately any day. Consultants and researchers often use the calculated or measured procedure and I often use all three estimates in an effort to counter check and be more accurate. It is good for the grazier to learn all techniques to better understand the dynamics of forage and stock relationships. With experience any procedure is adequately accurate for practicing grazier use.

Determining RHA by the visual method is simply done by estimating the days the herd can graze on each paddock to be used. There is no consideration to whether the forage is properly recovered, just what is grazeable that day. One simply asks the question. "How many days can my livestock graze here?" Then comes an answer. Of course, the type of grazing is considered in that thought — full use, top-grazing, etc.

For example, let's use an eight-paddock unit and make visual readings of RHD. Do not fret about acres and number of livestock for now. In this case, the herd is there and the grazing experience is a guide to the readings. I usually list these readings in my pasture notebook or on a form. (See Table 1.)

Date: May 10, 1997		
Paddock No.	RHD	Notes
1	1	
2	3	
3	½	
4	0	Just used
5	7	
6	2	
7	5	
8	10	Could hay
Total	28.5	Excellent reserve for now

Table 1

This method is very grazier friend-

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Hints On Growing Spring Oats

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population should be in the range of 1.2 to 1.5 million seeds per acre, or 28 to 34 plants/square foot. This requires a planting rate of 96 pounds/acre (3 bushels per acre). Cut the seed rate of oats to 1½ bushels if under-seeded with a legume.

• Plant a good variety. The results of this year's variety demonstration plot are enclosed along with several yield results from Penn State Trials. It is interesting to see how well the varieties Armor, Hercules and Ogle did when compared to some of the newer varieties. Generally, pick the highest yielding varieties available from your seed supplier.

• Plant with fertility. The typical fertilizer application on the pound per acre bases for for 80 bushel yield of oats would be DAP at 150, urea at 135; and potash at 200. This mix would provide 89 pounds N, 69 pounds of P_2O_5, and 122 pounds of K_2O. A complete fertilizer like this is best for spring oats. If manure was spread in the field for several years, there may not be any need for additional nitrogen. The fertilizer can be placed on through the drill or bulked on before planting. With low fertility levels in the field, apply the necessary fertilizer that is needed for the developing new oat plants.

• Weed control. In oats planted alone without a legume, under-seeding then controlling the broadleaf weeds such as ragweed is important for maximum oat yields. Stinger, Peak, MCPA, Harmony Extra, Buctril, Bronate, Banvel and 2,4-D are all labeled for spring oats. Take care during the year previous to planting oats in a field that the amounts of trizine herbicides are kept to a minimum or use a substitute herbicide with no carry over potential.

• Insect control. The control of damaging insects is usually not needed in most years in oat production. Cereal leaf beetles can be a problem some years, but many common insecticides will control them.

• Disease control. This is not usually a concern to spring oat producers. However, oat diseases are a major factor in oat production and losses from diseases can be higher in oats than in the other small grains.

Using improved varieties with good disease resistance has prevented the losses from the diseases that plague oats. Crop rotation is the other means of controlling diseases in oats. Oats should not be planted back into a field for at least three years after the last oat crop in that field to prevent losses by diseases.