

TRI-COUNTY AGRICULTURE NEWS

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Variable Rate Corn Planting



For more than 20 years Irvin King, a corn, soybean and wheat farmer in the southern part of Jefferson County has been changing the planting population of corn with a manual "clutch" that changed the population by 20%. This year, Mike Magaha with the help of Tim Fullen took it a step further. A 63 acre field was planted using a map created by using Mike's harvesting experience in the field and Tim's ability to turn this into a map. Three different populations were chosen: 22,000, 28,000 and 32,000. The map used to plant looked like this:

Figure 1 : Corn Planting Population Map



A majority of the field was planted at the rate of 28,000 seeds per acre (54.7%), The second largest area was planted at 34,000 (26.9%) with the remainder planted at 22,000 (18.4%). The WVU Extension Agent has taken 125 population counts in the field to evaluate the population goal versus what actually happened. Stay tuned for updates in the future as this field will also be harvested with a yield monitor which will develop a yield map. Nitrogen management will also be a future consideration.



Custom Farm Machinery Rates

In late 2007, the Farm Business Management Agents in the Northwest Extension District of Virginia, cooperating with other Extension Agents, surveyed farmers and custom operators familiar with machinery custom-work rates in their localities. The survey instrument was prepared by the Farm Business Management Agents and mailed to farmers by participating Extension Agents in eleven counties. The Farm Business Management Agents tabulated 219 usable surveys, representing 1347 quotes, and developed the biannual Guide.

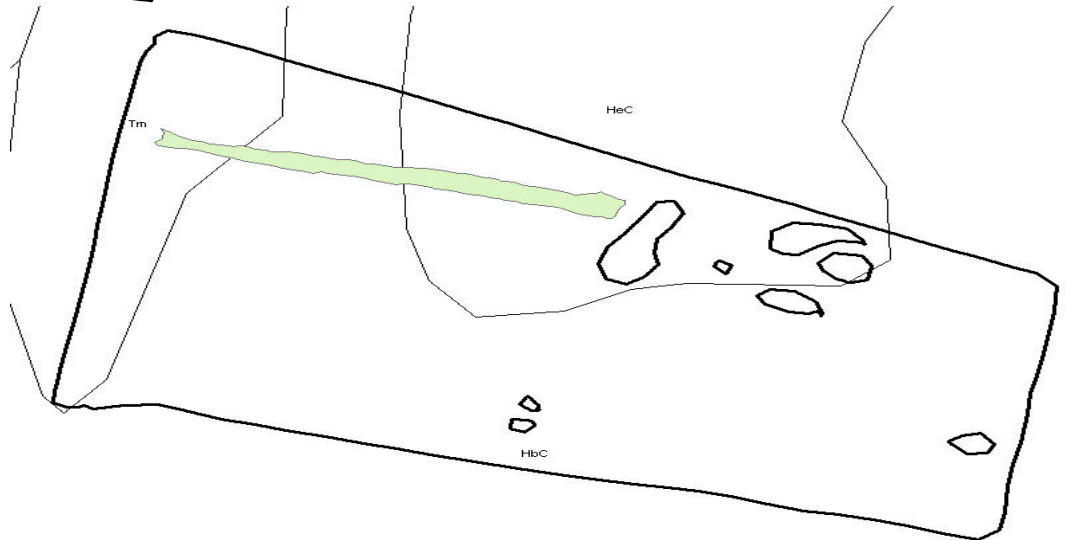
You can view these results on the web at:
<http://www.ext.vt.edu/news/periodicals/fmu/2008-04/ShenandoahValley.html>

Another source for Custom Machinery Rates is the Pennsylvania 2008 edition which can be viewed at:
http://www.nass.usda.gov/Statistics_by_State/Pennsylvania/Publications/Machinery_Custom_Rates/custom08.pdf

Copies can also be requested by calling your local WVU Extension Office.



Precision Ag Continues in Jefferson County



A second effort is to evaluate the value of sub-soiling a compacted field. Riggs and Stiles felt they had a field that was not performing, but could not put their finger on what was causing the lack of yield. Tim Fullen used a penetrometer to measure the compaction at 3", 6" and 9" throughout the field and found a heavy resistance at 9". The field was sub-soiled this spring just below this 9" depth except for a small area in the field.

This is a cooperative effort between Bobby Clark, Extension Agent in the Northern Shenandoah Valley for agronomy and the Jefferson County Extension Office.

What is the Fertilizer Value of that Bale of Hay or Straw?

I was asked this question by a local producer when considering how to sell his straw this summer. Many of you have started to make your first cutting of hay or will by the end of the month be harvesting wheat or barley. Each bale contains nutrients that are removed from the field. These nutrients either leave the farm or are fed back out to animals in areas different from where the nutrients were harvested. What is the value of these lost nutrients? Based on the average of four vendors on April 18th of this year here are the values of a 600 and 45 pound bale:



Forage	Value 45 Pound Bale	Value 600 Pound Bale
Alfalfa	\$1.79	\$23.81
Mixed Grass Hay	\$1.24	\$16.47
Grass Hay	\$1.13	\$15.01
Straw	\$1.00	\$13.39

Jochum Wiersma of the University of Minnesota Extension Service reminds us of a study that was done in Nebraska in the late eighties and published in the early nineties, grain yield of corn increased 17% or nearly 20 bushels as 150% of the residue was returned (in other words additional residue was added to build soils organic matter) to the soil as compared to having all the residue removed. At today's corn prices, these 20 bushels additional yield equal an opportunity cost of \$120.00 (20 x \$6.00). Again, a pretty staggering number, and it doesn't even include a valuation for the erosion control that is also created.

Loudoun Cattlemen's Association Reorganizes



The Loudoun Cattlemen's Association has reorganized to become the Blue Ridge Cattlemen's Association. This is more inclusive of the area and provides local cattle producers to work together to learn, promote the beef industry and cooperatively purchase farm supplies and market cattle as a group.

Recent discussions included a planned trip to Ag Progress Days on August 13th, marketing cattle as a group with Beef Quality Assurance certification through the VQA Gold Tag Program. I encourage you to look through the enclosed brochure of this non-profit organization and consider the power that comes when producers work together.

Their summer quarterly meeting will be held on July 23rd at Cleremont Farm (Carl Lindgren's family), starting at 6:00 pm. The farm is located at 20854 Trappe Road, Upperville, VA. The meeting will feature a tour of the farm to see the cattle and conservation practices, a cook-out, and a program on the cooperative purchasing of minerals and supplies with the Farmers Cooperative Association. To make a reservation call Gary Hornbaker at 707.771.5427.

Implanting Calves Still Pays Dividends



Growth-promoting implants are a well-established technology in the beef business. For more than 30 years some of these products have been available to improve growth and feed efficiency in cattle. A great deal of the more recent product development has been with implants designed for use in feedlot steers and heifers. However, there are a few implant products that are approved for use and will effectively work in calves prior to the time of weaning.

The use of all of the implant products is monitored by the Food and Drug Administration (FDA). Based on the research, FDA has determined that when used as instructed, implants have no withdrawal period.

Implants produce an increase in muscle growth, at the expense of fat deposition, in cattle of all ages. This growth effect is variable, and is affected by age and sex of calf, the calf's genetic potential for growth, level of nutrition, and overall health and vigor of the calf. But in general, one implant administered pre-weaning generates from 10 to 25 pounds of extra pounds at weaning.

The implants approved for use in pre-weaning calves contain lower doses of the growth-enhancing substances. In addition, the substances used for pre-weaning calves are less potent than those designed for use in feedlot cattle. In table 1 are shown the implants approved for pre-weaning calves.

*Zeranol has approximately 30-33% the estrogenic effect of Estradiol.

Product	Manufacturer	Active Ingredient	Days of Payout
Ralgro	Schering-Plough	36 mg Zeranol*	45-60
Synovex-C	Fort Dodge	10 mg Estradiol 100 mg Progesterone	70-90
Component E-C	VetLife	10 mg Estradiol 100 mg Progesterone	70-90
Compudose	VetLife	24 mg Estradiol	150-180

The mid-summer time period (July) is a good time to do various management practices to winter and spring-born calves. Applying a de-wormer to calves at this time is often advantageous. Administration of the first round of vaccines is a good start towards immunizing calves leading up to weaning. At this same time, an implant can be applied to the calves.

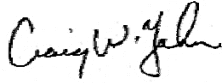


Advantages of pre-weaning implants - **The big advantage is more pounds at weaning.** The cost-benefit payback is quite high. Most implants cost from \$1.00 to \$1.50 per dose. They typically will generate 10 to 25 extra pounds at weaning. With higher levels of nutrition, such as with creep feeding or creep grazing, the improvement in gain will likewise be higher. Put a value on those pounds of calf and it is readily apparent that implanting calves is one of the highest-paying management practices that can be done.

Disadvantages of pre-weaning implants - Nothing is 100% positive. A few factors to consider about pre-weaning implanting include:

Negative effects on reproduction. Replacement heifers may have reduced reproductive performance if implanted improperly. They need to be at least 45 days old, and implanted only one time. Bulls kept for breeding should never be implanted. The safe approach with heifers is to not implant unless you are certain those heifers will not be kept for breeding.

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Reduced Quality Grade - Quality grade comes from more marbling. Fat within the lean is marbling. Implants reduce fat deposition. Thus, implants reduce Quality Grade. However, the lower-dose implants used for preweaning calves have less of a fat-reducing effect. A much greater reduction in quality comes from inappropriate use of the high-potency implants in feedlot cattle. To reduce the quality grade effect, use just one implant prior to weaning.

Implant Strategy - Producers must evaluate their specific production and marketing situation regarding many management practices. This is certainly true regarding the use of implants. The producer who will benefit most from the use of preweaning implants is the one who sells calves at or shortly after weaning. If the producer offers creep feed or creep grazing, which enhances the nutritional status of the calf, the implant effect will be even higher. The producer selling at weaning will have the additional pounds of calf to run through the marketplace.

Producers who retain ownership, especially through the feedlot, will benefit less from preweaning implants. This is because their payday is delayed until the cattle are finished. The extra pounds at weaning will not be converted into cash right away. Particularly if the cattle are to be sold on a Quality-oriented pricing grid, a producer may choose to not implant preweaning due to the risk of a quality grade reduction.

Summary - Implanting preweaning calves with one of the implants approved for that use is one of the highest-paying management practices available for beef producers. The extra pounds of calf at weaning come at a very low cost. While there are negative effects associated with implants, when just one implant is administered to calves prior to the time of weaning, these effects can be minimized.