ADVANCED AG SYSTEMS'S

Crop Soil News

http://www.advancedagsys.com/

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"It is the crops that feed the cows that make the milk which creates the money."

Advanced Ag Systems
Research, Education, Consulting

Raising Better Replacements for Less Cost

A significant cost on farms is that of raising replacement animals. Acerbating it are low forage rations and overcrowding that stress the mature cows and increase the culling rate. Thus, you need even more replacement animals which is more cost. High forage diets (if you have enough quality forage), reduced crowding, and animal comfort can go a long way reducing this high culling cost and the animals to replace them. These changes take time. There is a step you can take to grow better heifers at less cost starting this year.

A common complaint from both farmers and nutritionists is that the heifers are little porkers. You are trying to grow them fast and instead they get fat and so don't milk well. The main problem is the corn silage forage that you are feeding them. Discussions with nutritionists, research at the University of Nebraska, and actual on farm experience has found a solution that also reduces cost. The change is to switch their diet from corn silage to **NON BMR sorghum or sorghum-Sudan** as a major portion of their diet. Nebraska used non-bmr sorghum-Sudan, with lower DM and nutrient intakes, to get average daily gain in the recommended range of 1.75 – 2.2 lbs./day for Holstein heifers. Caution, we have multiple on farm examples of **bmr** sorghum species getting heifers almost as fat as on corn silage. The slow rate of passage allows the animal to extract a tremendous amount of nutrient from the highly digestible fiber of bmr sorghums, even if there is no grain starch in the forage. Switching to a regular, **non- bmr** type sorghums have less digestibility yet grow the animals at the optimum rate of gain.

Non bmr type will cost about 10% less and yield 1 – 2 tons more than a bmr type. The seed cost is over **$100/acre less than** most **stacked corn**. Sorghum does not worry about corn rootworm as the roots are toxic to anything that bites into it. (allowing for less expensive corn to be grown the next two years). It does not get corn diseases and so does not need to be sprayed with fungicide. It gets some of its own diseases but genetic selection controls most of them. All of this means significant reduction in cost of growing while getting equal or higher yields than corn silage. It enables you to grow a better animal for less cost.

A male sterile forage sorghum, in spite of being 10.8 feet tall at harvest, had no lodging as it had no heavy grain head to pull the crop down. In this trial it yielded over 30 tons 35% DM/acre. Other male sterile sorghum-Sudan types were over 24 tons 35% DM/A

Our extensive and ongoing testing supported by the New York Farm Viability Institute, has focused on what is best for northern US dairy farms. The research suggests that the optimum for heifers is to have a **non-bmr sorghum variety** that has **dry stalk gene** to increase the dry matter at harvest. Our research highly suggests that you choose a **male sterile variety**. Male sterile will not set seed. The major lodging problem with sorghum is when a heavy maturing grain head is 11 feet in the air on a stalk as thin as a fishing pole – it all falls down. Male sterile has no seed. Male sterile also solves the problem of over mature seed heads on delayed harvest. These seeds are about the size of #5 birdshot and about as digestible. Eliminating the seed keeps the increasing digestible energy stored the forage plant cells without lodging or hard seed problems.

Typical seed dump from accordion/ corrugated type tubes found on most drills. This produces weak plants that tend to lodge and do not yield. Replacing (http://www.needhamag.com) with sleeved tubes can allow even old drills to uniformly plant sorghum and winter forage.

Sorghums need to be planted at a limited seeding rate or they will lodge. For **30 inch rows** our research suggests **5 lbs**. of seed/acre. For **15 inch rows, 8 lbs.** is suggested. For **narrow row** drilling, which in our trial gave **18% higher yields**, **10 lbs. of seed/acre** are all that is needed.

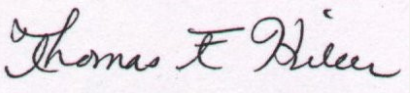
Sorghum should be purchased with a safener on the seed. This allows for certain corn herbicides to be safely used to control weeds yet not harm the sorghum. DON'T DAWDLE. Get the herbicide on immediately after planting to stay ahead of the weeds and not injure the crop. For organic farms, drilled higher seeding rate sorghum-Sudan is a better choice. This was discussed in the February 2016 newsletter.

We suggest you look for a variety that will mature within your climatic region. Keep in mind that it is absolutely critical to have the soil temperature at 60F and **PREDICTIONS FOR IT TO GO UP THE NEXT WEEK.** Ignore this and/or plant to early and you will have a weedy pile of nothing. Waiting to plant and especially drilling the stand maximizes sunlight interception and so yield; while quickly shading the ground. For the Albany NY area we rarely plant before June 1, yet get yields that equal or exceed corn silage on the same ground. If you want to get the crude protein up you need to feed the crop with manure or nitrogen plus sulfur at rates slightly higher than corn silage. Many farms short the crop and subsequent yield and protein.

This is a crop designed for pairing with winter triticale forage. It gets planted in the early summer after winter forage and hayage harvest, which opens a June window for immediately incorporated manure application to meet all the fertilizer needs. Our replicated research suggest harvest for our area by the beginning of September as our research data indicates decreasing day length and sunlight intensity rapidly decreases feed value by decreasing the NDFd. This works out as the winter forage needs to be planted (2 weeks before wheat) by then for optimum yield.

Proper and successful one cut harvest will be discussed in a summer issue of this letter.

Sincerely,



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