

Missouri Specialty Crop Industry

A group of our colleagues at MU recently released two reports describing the extent of the specialty crop industry in Missouri. I have found these reports to be chock full of relevant data about an important sector of the ag economy that is often difficult to assess. Locate the results of the 2017 survey (19 pages) and the 380 page Historical Perspective of the Missouri Specialty Crop Industry at this site: <http://crops.missouri.edu/horticulture>

Specialty crop categories include 1) Fruits and berries, 2) Tree nuts, 3) Vegetables, potatoes, and melons, 4) Nursery and flowering plants, and 5) Horticultural goods, such as, honey.



The initial 2017 survey (phase one) had 469 useable respondents. The map of production sites by county shows substantial specialty crop production occurs in much of west-central Missouri. The statistics below are for the group of respondents, statewide, from the initial survey.

The majority of growers (75%) indicated they had been producing for at least five years. Almost half (45%) said they had been growing specialty crops for over ten years.

The median open acres of for an operation is 3.0, but some are quite large. The median square feet under protection is 3,264.

One hundred (23%) of the respondents had gross sales less than \$1000. Forty percent had sales in the \$1000-\$9999 category and 26 percent had sales of \$10,000-\$49,999. Nearly ten percent had sales over six-digits.

The survey revealed some interesting results about distribution outlets. Most growers use only one or two outlets for their specialty crops. On-farm sales and farmers markets were the primary outlet.

Phase two survey is open now

The survey has been reopened to ensure that all growers have the opportunity to participate. New surveys are being accepted until March 31, 2018. For those who did not previously complete a survey and want to respond anonymously, take the survey at <http://tinyurl.com/SpecCrop>. A new summary report will be available in spring 2018. A complete economic impact analysis is also planned.



Source: Brent Carpenter, *Ag Business Specialist*

Alternative Forages

Missouri beef producers are fortunate in that dozens of forage species can be grown in pastures and hay fields.

The temptation is to be looking for some new, magic forage or potion that will improve forage productivity without the producer doing anything to change their management techniques. Unfortunately, most of these magic forages disappoint at some level. So, how should producers go about selecting forage types and varieties to improve their pastures and hay fields?

In true Extension fashion, I have come up with several questions that producer's need to ask when looking at forage options for their operation. This is not an all-inclusive list, but is intended to get the thought process started.

One starting place is to figure out if forage issues can be solved by changing how the current forage inventory is managed. Can improvements be made in grazing management, fertilizer management, or haying management? Are livestock production management changes possible and will they be helpful? What is the current level of forage management skill? Can new forage management skills be learned and implemented?

Assuming a new forage type can be properly managed, what determines which forage or forages are selected? The following questions come to mind. When is forage needed? What level of forage quality is needed? What is affordable for both establishment and maintenance of the new forage? Is tillable land available? Does the farm infrastructure exist to manage different forage crops and if not, what will be the cost to bring the infrastructure up to speed? Is there independent research data on the forage being considering?

Alternative forages may include the addition of cover crops into the forage system or renovation of existing tall fescue with one of the newer novel endophyte tall fescue varieties.

In the case of cover crops, water availability and fencing are two of the most important issues to figure out. Then consider when and how the forage will be utilized. Determine if the goal is fall grazing, spring grazing, or spring hay or haylage harvest. Then select cover crop species that meet agronomic and livestock production goals.

If complete renovation of existing tall fescue stands is desired, begin the process well in advance of the expected seeding date. Soil test and amend as needed. Spring seedhead suppression of existing fescue is recommended. Determine which renovation process to utilize, and follow the recommended steps for that particular process.

As mentioned previously, there are literally dozens of crops that can be incorporated into a sustainable forage production system. Many times, the success or failure of these crops boils down to following simple, proven management practices. Select forage crops that fill voids in your current forage system, and have a proven track record of production and management requirements. Then follow those management guidelines.

Source: *Gene Schmitz, Livestock Specialist*

**CONTINUOUS
IMPROVEMENT
IS BETTER
THAN
DELAYED
PERFECTION.**

~MARK TWAIN

Forage Quality and the Value of Legumes in Pastures

On many farm visits, the main topic of discussion usually leads to ways of improving the quality of the pastures and hay fields, primary forages based on fescue. Judging from the appearance of cattle and other grazing livestock, the fescue is usually hot, meaning it has a high level of endophyte.

The discussion usually turned to ways to overcome the endophyte. Options discussed included complete renovation of the fields, using an intensive grazing system, feeding supplements, and/or interseeding clovers into the fescue.

After a brief conservation, we usually settle on rotational grazing system and interseeding of clovers and lespedeza into the existing pastures. So, why incorporate these two options?

To improved quality of forage and lower levels of endophyte.

By using a rotational grazing system, the grass will stay in a vegetative stage of growth longer as it does not have the opportunity to go to seed. Research has shown that concentrations of toxin produced by the endophyte fungus are much higher in the stem and seed tissues of fescue than in the leaf tissue. A bonus of rotational grazing versus continuous grazing is that forage quality and quantity are improved.

One of the more economical ways to compensate for the ill effects of the fescue endophyte is by interseeding legumes into the infected fescue. Past studies have shown cattle performances improve when comparing low endophyte fescue pastures and the high endophyte fescue pastures plus ladino clover. Based on average daily gains, cattle grazing the low endophyte and/or the high endophyte plus ladino clover pastures were in excess of 1.5 pounds. However, cattle on the high endophyte pastures alone gained less than one pound per day.

Adding legumes to your pastures and hay fields is an excellent way to improve our forage. The value of clover and lespedeza, when added to your pastures, is the increase in the quality (feed value) of the forage and the dilution effect on the endophyte.

Red clovers are the most widely grown of all the true clovers. It is the preferred clover in hay fields and in pastures when rotational grazing is practical.

When overseeding two varieties of red clover – Kenlan and Kenstar – are recommended for this area. These varieties are high yielding and have shown good resistance to some of our most prevalent diseases.

There may also be other varieties available in your area so check with your local seed supplier to see what they have. If red clover is your choice, then it is time to get in gear.

The recommended fall seeding dates for red clover are August 15 to September 14. The best method of seeding into a fescue sod is to use a no-till drill. However, if you have missed this date then late winter frost seeding is another option. This is usually done in February and has proven to be another acceptable method.

Ladino clover also does well in pastures. It will withstand heavier grazing pressure than will the red clovers. Two deterrents to using ladino are the possibility of its causing bloat and its inability to survive prolong periods of dry weather. Red Clover and Ladino Clovers are both cool season legumes meaning they will come early, play out in the hot summer months, and will reappear in the fall given enough moisture is available.



Lespedezas are excellent legume choices for improving the quality and quantity of our summer pastures. Two species of the annual lespedeza are grown in Missouri – Lespedeza Striata (common, kobe) and Lespedeza Stipulacea (Korean). These may also be over seeded into existing pastures. Remember these are annuals so they are much easier to graze out and need special attention for retention.

There are programs available to help with the cost of overseeding legumes into your fescue pastures. The DSP-2 program is administered through your local Soil and Water Conservation District. This program provides for 75% cost share on the lime, fertilizer, seed and drilling necessary for establishing the legume. There are some requirement that must be followed for this program such as a current soil test. For more information, call your local SWCD office.

Also, keep in mind a field of weeds is a field of weeds and cattle usually do not benefit from this situation. Weeds are not considered a dilution method to endophyte. For more information on the establishment and maintenance of legumes in a forage program, contact your University Extension Center and request Extension Guides.

Source: *Terry Halleran, Agronomy Specialist*

MU to Offer Dicamba Training

Dicamba application has presented challenges for Missouri agriculture, and the University of Missouri recognizes the importance of preparing our communities for managing this and similar technologies in the future.

The MU College of Agriculture, Food and Natural Resources, and MU Extension, in cooperation with the Missouri Department of Agriculture, will offer web-based and in-person training for those wishing to use or purchase dicamba in 2018. More information will be available at extension.missouri.edu/main/spotlight/dicamba.aspx.

On Oct. 13, 2017 the Environmental Protection Agency announced an agreement with Monsanto, BASF and DuPont on measures to minimize the potential for off-target movement of dicamba and further ensure effective use of three pesticides: DuPont's FeXapan, BASF's Engenia and Monsanto's XtendiMax. The Missouri Department of Agriculture is reviewing these requirements as preparations are made for the 2018 growing season. The department is also working with MU and other researchers to strengthen education and training specific to dicamba and other auxin herbicides.

The full news release from the EPA is available at epa.gov/newsreleases/epa-and-states-collective-efforts-lead-regulatory-action-dicamba.

More information about dicamba is available at Agriculture.Mo.Gov/dicamba.

