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Membership for Show-Me-Select Heifer Program Due

The Show-Me-Select Heifer Development Program (SMS) is a statewide program designed to improve the quality of replacement heifers added to beef herds in Missouri. This University of Missouri educational program outlines specific practices, which have proven to be a benefit in developing a replacement heifer that will have a long and productive life in a Missouri herd.

The SMS program is under the leadership and control of Show-Me-Select Replacement Heifers, Inc. a not-for-profit organization. A benefit of membership is the ability to participate in the value-added opportunities provided by the SMS trademark. These opportunities include the sale of trademarked heifers by private treaty or by participation in sanctioned SMS sales. Many producers elect to trademark the heifers they keep in their herd by inserting a SMS ear tag.

Once heifers are worked at pre-breeding, there will be a two dollar per head data processing fee assessed for any heifers chosen to be nominated as a potential SMS trademarked heifers. Producers will need to work with their veterinarian and local extension livestock specialist to complete the requirements of the program.

Annual producer memberships for the SMS program are five dollars and 2012 memberships are currently being taken. For membership applications or for information on the SMS program, contact your local MU Extension livestock specialist.

Show-Me-Select Heifer Program website: *http://agebb.missouri.edu/select/index.htm*

Source: *Gene Schmitz, Livestock Specialist*

Maximizing Soybean Yield

The various farm publications often offer tips on how to produce higher soybean yields. Depending on which article you see, the number of tips can range from as few as 5 to 20 tips. All of the tips have a lot of commonality and involve common sense decisions.

1. Variety selection- According to some sources, if you are planting a variety that is two years old or older, you may be forfeiting $13 or more per acre. Check independent yield trials that are local and similar to your growing conditions. Local side by side trials, and field days that feature variety comparisons are another way to gather as much information as possible about varieties that fit your growing conditions. The University of Missouri variety testing program can be found online at *http://varietytesting.missouri.edu /*

2. Soil fertility – Soil pH is critical. Soybeans have a taproot which releases hydrogen into the soil. This creates a zone of concentrated acidity around the root. During dry periods, the acidity produced by the root counterbalances the alkalinity of the soil. Following a rain, the acidity is moved deeper into the soil where the soil becomes more alkaline and ties up the nutrients which become unavailable to the plant.

3. Balance fertility - Soybeans are a huge user of potassium (K). Potassium is involved in water management and disease prevention. Keep an eye on magnesium (Mg) levels especially if a field is high in phosphorous (P).

4. Quality of root zone - This will improve water-holding capacity of the soil and plant resiliency. This includes managing soybean cyst nematode populations, using fungicide and insecticide seed treatments, soil drainage, managing compaction and fertility. Improving any or all of these conditions will produce healthier roots which will allow the plant to take full advantage of its yield potential.

5.Rotation - Rotation almost always increases yield. This appears to be true for all soil types. Yield increases of 5, 7 and 10-15 bushels per acre have been reported after 2, 3, and 4 years of corn, respectively.

6. Inoculate seed - If soybeans have not been grown in a field for a few years, inoculant is needed. In some years as much as a 2 bushel yield increase has been reported where inoculant was used on a regular basis. If in doubt, inoculant is cheap insurance with today's soybean prices.

7. Plant early - Plant as early as conditions allow taking advantage of as much of the growing season as possible.

8. Spacing and population - The greatest yield advantage is from 15- and 10-inch row spacing. Data from several Midwest universities indicate that a final stand of 100,000 to 125,000 plants per acre will provide the best return on investment.

9. Manage weeds early - This reduces stress on the soybean and competition for nutrients, water and sunlight.

10. Hope the weather cooperates.

Source: *Wayne Crook, Agronomy Specialist*

Two Sails with Wind for HighTunnels in Missouri

High tunnels received another governmental program boost with a Jan. 31st announcement by the Missouri Agriculture and Small Business Development Authority (MASBD) on a new loan program. Already supporting farmers interested in constructing high tunnels in 2010 and 2011 is the Natural Resource Conservation Service (NRCS) Environmental Quality Incentive Program (EQIP). EQIP is a program designed to encourage the adoption of new conservation practices and contracts are awarded through a competitive process. That program reimbursed around $2 per square foot for a maximum of 2178 square feet of a high tunnel. A farmer could put up a larger tunnel, which many did, as a 30 by 96 foot tunnel is the most popular size. This approx. 3,000 foot high tunnel costs around $6,000 to $8,000 for materials. For most farmers the NRCS program would reimburse about 2/3rds to 3/4ths of the cost. A good example of a farmer who has constructed a NRCS funded high tunnel can be found at: *http://www.mo.nrcs.usda.gov/news/Showcase/showcase_JimProuhet.html* .

Where the MASBD High Tunnel Loan program steps in is to provide the funding for anyone who does not want to use their own money for purchasing a high tunnel kit and then wait to be reimbursed by NRCS. This may be especially helpful to farmers with lower

cash flow or individuals on a tight budget; however, it is available to everyone. One must be approved by the NRCS for a high tunnel to qualify for the MASBD loan program. Program details can be found at the MDA's web site *http://mda.mo.gov/abd/financial/hightunnel.php* .

High tunnels are unheated greenhouses that can boost production as much as three times by increasing the growing season for fruit and vegetables. In 2010, NRCS issued contracts for 152 high tunnels to be built in Missouri; followed by another 122 in 2011. In the last two years for the Central Region the number of high tunnels obligated has been as follows: Audrain- 9, Benton- 7, Boone- 9, Callaway- 7, Carroll- 2, Chariton - 1, Cooper-1, Cole- 3, Moniteau- 2, Morgan- 1, Osage- 7, Pettis-2, Saline - 4.

There have been two separate but not equal pools of money from NRCS to support the EQIP sponsored high tunnels. Farmers could opt to manage their tunnels conventionally (EQIP High Tunnel Initiative) or organically and 'transitioning' to organic (the Organic Initiative). There was considerably more money to support organic high tunnels than conventionally managed ones in 2010 and 2011. That disparity exists for any 2012 enrollments as well. This has tempted some individuals to consider organic production when they might not be truly committed to it, or understand the restrictions they might have to operate within. While the EQIP contract is for a period of 4 years, a farmer would only be managing a high tunnel organically for 3 years. That is because the first year of the contract is generally occupied with acquiring the materials and construction. Once the contract period has expired, the high tunnel can be managed however the farmer wants ('it's yours').

What generally worries most farmers or gardeners about managing vegetables organically are pest problems. However, in a high tunnel many of the most common foliar diseases (e.g. tomato leaf blights) are less troublesome because the plant's foliage stays much drier. And many of the more common insects (e.g. caterpillars) can be controlled adequately with organic insecticides. Weeds can be managed by mowing around a high tunnel and within by hand hoeing and use of mulch on the production beds, e.g. a plastic film with a drip system underneath. It is not that big of an area, after all.

Often underappreciated is the need of plants to receive proper nutrient levels. Tomatoes are the crop of choice to grow in a high tunnel, due to their profit potential, and they have a high demand of nutrients like nitrogen, potassium and calcium especially when loaded up with fruit. Liquid feeding of nutrients is commonly used, but this method is more difficult and expensive organically. Supplying adequate nutrition must be given careful thought and a plan needs to be followed. University of Missouri Extension can be a good first stop for farmers wanting information on pest control and nutrition specific to high tunnels.

Farmers interested in this conservation program are encouraged to contact their local NRCS/SWCD office for details. In 2012, EQIP will pay $2.57 or $3.08 per square foot depending upon the producer's ranking category. EQIP reimburses a producer that receives a contract for 75-90% of the average cost of a high tunnel kit. The application deadline for the second ranking period is **March 30th**. Information can be found at- *http://www.mo.nrcs.usda.gov/programs/eqip/eqip.html* . NRCS have both educational materials and specifics regarding their program. There is no one location on their web site where these references are kept, so contacting your local office is the best option.

Source: *James Quinn, Horticulture Specialist* - 573-634-2924 or QuinnJa@missouri.edu

Forage Production Costs Estimates

The table below shows all non-land economic costs for typical forage production practices in Central Missouri. Prices and yields are converted to air-dry basis so unit costs are comparable across crops. Ownership costs account for relevant machinery depreciation and overhead. Ownership costs (or rent) for land is excluded. Production costs do not account for storage, marketing or feeding costs.

Your costs and returns *will be* different. In particular, forage establishment costs are largely dictated by the previous crop. Use these budgets as a template to tailor estimates for your farm. For more information, or to get a free copy of the Forage Budget Generator spreadsheet, consult your agricultural business specialist. **Source:** *Brent Carpenter, Ag Business Specialist*

forage table on last pg →

Forage cost estimates for Central Missouri, harvest in 2012.

	Establish Alfalfa (common)	Establish CS Grass Clover	Alfalfa Hay Sm sq bales	Alfalfa Baleage	Fescue + Clover Lg Rd Bales	Fescue + Clover Pasture	Corn Silage
Yield, tons per acre, air-dry basis*	2.10	0.72	5.00	5.20	2.98	2.68	8.00
Value per air-dry ton*	$150	$24	$150	$140	$60	$24	$90
Value of production, per acre	**$315**	**$18**	**$750**	**$728**	**$179**	**$65**	**$720**
Operating costs per acre							
Seed	56	27	0	0	16	16	72
Nitrogen	0	18	0	0	24	24	60
Phosphorus, P_2O_5	35	18	36	36	23	0	30
Potassium, K_2O	50	25	125	125	33	0	25
Lime and other amendments	36	36	1	1	6	6	6
Crop protection chemicals	18	9	7	7	0	0	35
Crop supplies, twine, wrap	6	1	9	85	7	0	1
Custom hire and hauling	65	24	112	52	16	6	75
Machinery fuel	26	8	28	37	8	1	27
Machinery repairs and maintenance	17	3	16	32	5	0	16
Operator and hired labor	35	10	39	44	9	2	23
Operating interest	10	5	11	12	4	2	11
Operating costs per acre	**$353**	**$183**	**$384**	**$431**	**$151**	**$58**	**$381**
Nonland ownership costs per acre	**$57**	**$16**	**$46**	**$64**	**$24**	**$5**	**$52**
Total all listed costs per acre	**$410**	**$199**	**$430**	**$495**	**$175**	**$62**	**$433**
Return over operating costs per acre	**-$38**	**-$166**	**$366**	**$297**	**$27**	**$7**	**$339**
Return over total nonland costs per acre	**-$95**	**-$181**	**$320**	**$233**	**$3**	**$3**	**$287**
Operating costs, per air-dry ton*			**$77**	**$83**	**$51**	**$21**	**$48**
Total nonland costs per air-dry ton*			**$86**	**$95**	**$59**	**$23**	**$54**

* Hay equivalent moisture, 90% dry matter.

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