Raising Meat Rabbits

Meat Rabbit Production: Many people consider raising meat rabbits in their backyard for personal consumption due to their small size and relatively easy care. Prior to purchasing any livestock, it is important to gather information regarding the important aspects of raising rabbits for meat.

Housing: Rabbits can withstand cold weather better than hot weather. Outside cages need to be placed in the shade with a roof to provide protection from rain, wind, drafts, dampness, and direct sun during hot summer months. The temperature within the hutch should not reach more than 85° F to prevent death. A couple of options to keep a rabbit cool include: placing a gallon jug of frozen water in the cage, hanging long wet towels on the sides of the cage and placing a fan near the cage situated so it is not directly blowing on the rabbit. During colder weather, protect rabbits from drafts, but ensure proper ventilation. Hutches can be made of wood or wire. Wire cages are preferable for breeding doe and weaned litters. Size varies but the general rule of thumb is to provide ¼ square foot per pound of body weight. Each doe with a litter should have six square feet of space. Pregnant doe may need a plastic mat inserted over part of the wire floor for support. Hutches should be cleaned once a month using one cup bleach in one gallon of water. Nest boxes should be slightly larger than the doe. A general practice is approximately three inches longer than the doe and approximately two inches wider. The height should be 9-12 inches for medium to larger breeds.

Breeds: The three most popular breeds for meat production are New Zealand White, Californian, and Florida White, with the first two being the most widely used. Mature New Zealand doe weigh 10-12 pounds / bucks weigh 9-11 pounds / average litter size is 8-10 kits. They are known for their calm and docile demeanor. Mature Californian doe weigh 8.5-10.5 pounds / bucks weigh 8-10 pounds / average litter size is 6-8 kits. The Florida Whites have compact meaty bodies making them popular as a 4-6 pound doe.

Nutrition: A commercially prepared rabbit pellet at 16-18% protein will provide all the nutrition needed and should be fed daily. Do not overfeed and remove uneaten pellets daily. Follow the feed label’s directions on feeding recommendations. Gradually increase feed intake when a doe is confirmed pregnant. A couple days prior to kindling, cut down on the amount of feed given. The first day after kindling, feed the doe only 2-4 ounces to prevent caked udders and then increase gradually. Feed the doe and litter all they will eat each day, and continue feeding the litter all they want after weaning. Ensure fresh water is available at all times. A doe and litter can consume one gallon of water a day. Water bottles can be used during warm weather and metal pans or crocks should be used during cold weather.
The new Food and Drug Administration regulations will affect all U.S. poultry and livestock producers. This includes anyone raising pigs and youth exhibitors. Because of this, the National Pork Board has been urging all its stakeholders to get ready now before the new antibiotic regulations take effect on Jan. 1, 2017.

"If they haven’t already done so, pork producers and youth exhibitors should sit down with their veterinarians and determine what they need to do to comply with the new veterinary feed directive (VFD) and prescription requirement for water-based medications,” says Jennifer Koeman, DVM, Pork Checkoff’s director of producer and public health.

Although certification in the Pork Quality Assurance® Plus or Youth Pork Quality Assurance® Plus program should provide a good foundation, Koeman says some new requirements, such as keeping original copies of VFDs for two years (producer, veterinarian and feed mill) will be added.

To help keep things simple, the National Pork Board has introduced the USCARE checklist, shown right. It offers six key steps for producers and exhibitors to take to prepare for the regulatory changes. For additional information about the antibiotic changes, visit www.pork.org/antibiotics.

Reproduction: Adult females reach maturity approximately 30-60 days prior to bucks, with medium sized breeds reaching maturity at 6-7 months, and larger breeds at eight months or more. The vulva of a doe in heat will usually turn purple to reddish pink in color and appear to be somewhat swollen. Doe are in heat 14 out of 16 days and are induced ovulators, ovulating approximately one hour after mating. When ready to mate, take the doe to the buck and remove after mating occurs. Mate again 8-12 hours later to increase conception rate and litter size. One mature buck can mate with 1-2 doe daily. Ten to 16 days after mating, palpation can determine if she is pregnant. At day 28 of gestation place a nest box in the cage with straw or other clean bedding. Gestation length is approximately 31-35 days. Once the doe kindles, remove bloody masses and dead kits and continue to check and clean the box daily. Check the teat to kit ratio and foster if needed. Remove the nest box at 15-21 days post-kindling. The kits will be ready to wean on day 30. Kits should reach market weight of 4.5-5 pounds by eight weeks.

Health: Ears should be cleaned when needed with cotton or wool swabs and using baby oil. A healthy rabbit’s nose will be dry. The nails should be clipped when needed to prevent overgrowth, but be sure not to cut too short. External parasites affecting rabbits include: flies, fleas, and mites. Internal parasites are usually not a major problem. Cleansing and sanitation will help prevent some of these. Remove droppings daily and at least once a month, clean and disinfect the cage and tray by using a mild bleach solution. Be sure to rinse well and expose to sunlight until dry. For information on the health of rabbits, contact your veterinarian.

Rabbit meat is delicious and healthy and when raised in the backyard, can become a great activity for the whole family to be involved in.

Heather Conrow, Livestock Specialist, University of Missouri Extension, Fulton, MO.
Switch to Intensive Management in Soybean

Can the national average soybean yield reach as high as 85 bushels per acre? Fred Below believes so. The University of Illinois crop physiologist documented more than 100 bushels per acre in field trials in 2015, as he continues to explore the “Six Secrets to Soybean Success.”

“Our goal is to evaluate the effect of each of six factors individually and then, more importantly, together in a high-tech systems approach,” he says. “Most Illinois farmers had excellent yields in 2015. We ran seven trials from northern to southern Illinois and saw a 14.7-bushel increase overall in yield between our grower standard practice average and our high-tech system yield. The standard-practice yield was 70.7 bushels. The high-tech system yield was 85.4 bushels.”

“The bottom line is that a high-tech system works in soybeans as well as it does in corn,” says Below. “We have validated our six secrets.”

**1. Weather.** Near-ideal August weather was the defining factor for Illinois soybean yields in 2015, but Below says some early-season efforts can help reduce the negative impact any adverse weather may have. Protecting soybean seed with pesticide seed treatments and early planting may promote strong root development, alleviate stress and generate soybean vegetative growth and node formation.

**2. Soil fertility.** Below’s past studies show applying fertilizer containing nitrogen, phosphorus, zinc and sulfur immediately prior to planting can add almost four bushels per acre. In 2015 trials, adding phosphate alone produced a 5.8-bushel advantage.

**3. Row spacing.** The advantage of narrow rows varies by location and year, but Below finds a two- to nine-bushel advantage for 20-inch rows over 30-inch rows. Narrow row spacing in 2015 trials had a 3.6-bushel-per-acre yield advantage in the standard production system and an 8.3-bushel increase in the high-tech system. “Twenty-inch rows allow quicker canopy closure and greater light interception than 30-inch rows and more canopy air movement than 15-inch rows,” he says.

**4. Foliar treatments.** Foliar fungicides and insecticides applied one time, if needed, at the R3 stage added an average 3.1 bushels per acre. Below notes that more than half a crop’s yield comes from middle nodes, so protecting middle leaves is critical. One more pod per plant can add two more bushels per acre.

**5. Genetics and variety selection.** Choosing the fullest-maturity varieties for your area can provide a three- to four-bushel-per-acre yield advantage, says Below.

**6. Seed treatments.** Fungicide, insecticide and nematicide seed treatments protect yield potential by promoting germination, seedling establishment and early plant vigor. Below saw differences out of the ground with the complete seed treatment in 2015, which ended up being worth 1.6 to 2.8 bushels per acre.

*Courtesy of the Illinois Soybean Association*
Corn fields checked in southeast Missouri were between VE and V2 stage (second leaf collar visible). In fields, where there were strips of green weeds and volunteer wheat, there was evidence of cutworm damage. Continue to monitor fields for cutworm damage through the V4 stage. Cutworms feed at night and hide during the day. Dig around cut plants and under clods to identify larvae presence. Threshold is 2% to 4% below ground cutting and/or 6% to 8% above ground feeding or cutting. Rescue treatments, such as Hero or Warrior II, are suggested at threshold. Consult M171 “Missouri Pest Management Guide” at http://extension.missouri.edu/p/M171 for treatment options. For more information on cutworm identification and scouting procedures contact your local MU Extension Center and ask for MU Guide G7112 “Black cutworm in Missouri” at http://extension.missouri.edu/p/G7112.

The following should be considered when making replant decisions. As corn emerges, conduct stand counts throughout the field in several locations. The factors to consider are stand uniformity, yield potential of current stand and cost/yield penalty of replanting. For more information on replant decisions refer to MU Guide 4091: “Corn and Soybean Replant Decisions” at http://extension.missouri.edu/p/G4091.

Anthony Ohmes and Rick Deloughery, Agronomy Specialist, University of Missouri Extension, Jackson and Charleston, MO.

Get weekly pest alert updates from local monitors at http://ipm.missouri.edu/pestMonitoring/. Email is required, then select your region in Missouri. April alerts include black cutworm. Potentially significant captures of Black Cutworm (Agrotis ipsilon) have been reported. Black Cutworm captures do not indicate that treatment is necessary, but indicate that fields should be scouted. Be aware that this alert applies only to Black Cutworm.
Hay and Baleage Reference

I have put together a Hay and Baleage reference sheet which outlines the three primary loss factors:

1) growth stage at harvest;
2) conditions and handling of forage during harvest;
3) baling moisture and storage.


Cool season grass reproductive stages are triggered by day length and not grass height. Quality hay and grazing is from leaves. In fescue, when seed heads emerge, energy begins to shift to stalk strength (more stemmy hay) and seed development which takes energy away from leaves. As stems increase, hay quality decreases. Therefore, early cutting of cool season grass provides the best quality. Early harvest, boot stage, also reduces the levels of ergovaline produced by toxic endophyte in fescue which is concentrated in seed heads. The recommended stages of maturity for harvesting common forage plants in Missouri are:

- Alfalfa: bud to 1/10 bloom.
- Timothy: late boot.
- Tall fescue: boot stage.
- Red clover: 1/4 to 1/2 bloom.
- Bromegrass: heads emerged.
- Orchardgrass: blooms emerged.
- Reed canarygrass: heads emerged.

Anthony Ohmes, Agronomy Specialist, University of Missouri Extension, Jackson, MO.

The near-optimum time for alfalfa harvest, the bud to first flower stage. (New Mexico State University)
Special Local Needs Registration for Watermelon

Although rows have been prepared and planted in southeast Missouri, please take note of the new special local needs registration for weed control in watermelon. To request a copy of the label send an email to melissa.may@mda.mo.gov, Certification Program Coordinator with the Missouri Department of Agriculture.

The Missouri Department of Agriculture has reviewed and accepted a 24c Special Local Need registration for Reflex® Herbicide (fomesafen), EPA Reg. No.100-993, for weed control in watermelon. The Special Local Need registration number assigned to this registration is MO-160002. The expiration date on the Reflex® Herbicide Special Local Need label is December, 31, 2021.

Reflex Herbicide rates below 16 fl oz/A are not intended to be used as a stand-alone weed control program. Refer to the Reflex Herbicide federal label for a complete list of weeds controlled. All rates listed are on a broadcast basis unless otherwise specified.

**Bare Ground Seeded:** Apply Reflex Herbicide at 10 to 12 fl oz/A within 24 hours after planting. Follow with overhead irrigation (0.2-0.5 inch) at least 36 hours prior to watermelon cracking the ground.

**Bare Ground Transplants:** Prepare land for transplanting, apply Reflex Herbicide at 10 to 12 fl oz/A, irrigate (overhead - 0.2 to 0.5 inch) to activate the herbicide, and then prepare plant holes and transplant. Do not punch holes until after Reflex Herbicide application and irrigation have occurred. Avoid tillage after the Reflex Herbicide application through transplanting.

**Mulched Seeded or Transplants:** Pre-transplant under mulch Apply Reflex Herbicide at 10 to 12 fl oz/A under mulch. Ensure the mulch laying process does not disturb treated soil. Do not apply prior to laying drip or running a bed pan. Application must be made immediately prior to laying plastic without soil disturbance. Pre-transplant over mulch: Apply Reflex Herbicide at 10 to 12 fl oz/A over top of mulch. Reflex Herbicide must be washed off of mulch with 0.5 inch rainfall/irrigation in a single event prior to hole punching and transplanting. It is essential that the top of the mulch bed is shaped such that water does not accumulate in the transplant row (drill) and sheds uniformly to each side of the mulch. Row Middle Application: Reflex Herbicide at 10 to 16 fl oz/A may be applied to row-middles prior to emergence or transplanting. The Reflex Herbicide rate applied must be reduced in proportion to the area treated. Severe injury or plant death will occur if foliage is contacted by Reflex Herbicide.

Price Loss Coverage (PLC) & Agriculture Risk Coverage (ARC) Payments

David Reinbott, Agriculture Business Development Specialist for the University of Missouri Extension in Benton, Missouri has recently updated the Price Loss Coverage and Agriculture Risk Coverage Payments worksheets.

These can be found at [http://extension.missouri.edu/scott/PLC-Payments.aspx](http://extension.missouri.edu/scott/PLC-Payments.aspx). If you have a question for David he can be contacted at ReinbottD@missouri.edu or call 573-545-3516.
The National Sustainable Agriculture Coalition (NSAC) has released an updated version of its annual Farmers’ Guide to Applying for the Value-Added Producer Grant Program, a unique resource that walks farmers through the program’s application requirements, including a step-by-step description of the application and ranking processes.

Recognizing that applying for federal grants can be challenging, even for professional grant-writers, NSAC has been issuing updated versions of their Farmers’ Guide for the last four years. First released in 2012, the Farmers’ Guide is available as a free resource, downloadable online via the NSAC website and has been updated to correspond with the April announcement that up to $44 million in funding will be available for fiscal year (FY) 2016. The guide provides a snapshot of everything farmers and potential applicants might want to know about VAPG, including: project eligibility and examples of previously awarded projects, proposal types and requirements, an application scoring outline, program history, and an application timeline and checklist.

Administered by USDA Rural Development, VAPG provides competitive grants to help farmers and ranchers take their businesses to the next level by transforming raw goods into higher-value processed products like flour, cheese, or sauces/spreads, by innovative marketing of inherently higher value products like organic or grass-fed, or by linking through food hubs or other supply chain networks to local and regional food markets.

The grants can be used for working capital, feasibility studies, business plans, and marketing efforts. Up to $75,000 is available for planning grants and up to $250,000 is available for implementation grants.

The deadline to submit paper applications for VAPG is July 1, while electronic applications are due June 24 through grants.gov. Potential Applicants can learn more about the program by visiting NSAC’s Grassroots Guide to the Farm Bill page on the VAPG program. In addition to NSAC’s resources, more information, including application details, is available on the USDA VAPG webpage.


Missouri Department of Agriculture Value-Added Grant Program - http://agriculture.mo.gov/abd/financial/valaddgrant.php
Future Meetings & Events -

**Show-Me-Select Replacement Heifer Sale** - May 7, 2016. Sale time 1:00 p.m. Fruitland Livestock Auction, Jackson, MO. Consignment preview after 8:00 a.m. sale day. Expecting 125 head. Contact Erin Larimore for catalog: 573-243-3581 or LarimoreE@missouri.edu.

**Grazing School** – May 10-11, 2016 at Mineral Area College. Contact Ste. Genevieve SWCD to register at 573-883-3566 ext. 3
– May 17-19 in Alton, MO. Contact Sarah Stubbs or Jeff Lawrence at 417-778-7561.

**MCA All-Breeds Junior Show** - June 10-12, 2016, Missouri State Fairgrounds, Sedalia, MO. Early entry deadline is May 13, 2016.

**Commodities and markets** - [http://extension.missouri.edu/scott/crop-budgets.aspx](http://extension.missouri.edu/scott/crop-budgets.aspx)

Contributions to this publication are made by University of Missouri agriculture food and natural resource specialists. If you would like to receive this publication please send an email with request to:

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