

Cornell Small Farms Program & Department of Animal Science Livestock Fact Sheets

Raising Pastured Pigs

Revised 10/7/05

Introduction

More consumers are requesting that their meat products come from farms that raise their livestock with specific attention paid to housing and management style.

Pasture based swine systems use pasture in the summer and loose hoop housing in the winter. Sows are fed in small groups and generally given a choice of huts to use during farrowing, whether it is inside the hoop house during winter or on pasture during the summer.

General terminology used:

Barrow -- Male pig castrated before sexual maturity.

Boar -- Intact (not castrated) male pig.

Gilt -- Female pig of any age prior to second pregnancy.

Pig -- Young swine of either sex.

Piglet -- Baby pig.

Sow -- Female swine having produced one or more litters.

Farrow -- To give birth to a litter of piglets.

Breeds

The breeds that do the best in pasture based systems are not the refined white market hogs found in commercial systems. Preference should be made to purchase breeding stock from hogs that have been raised on pasture systems or have been selected to have a higher tolerance for stress and adaptability to range conditions. Pasture-raised hogs face different stresses and require different traits, such as hardiness in extreme climates, parasite resistance, foraging ability, and good mothering attributes

Some traditional and heritage swine breeds still retain these characteristics. These breeds include the Berkshire, Chester White, Duroc, Hampshire, Spotted, Tamworth, Poland China, Large Black, Hereford, and Gloucester Old Spot Pig.



legistry Duroc



Hampshire

Feed Requirements

Good pasture, young and lush, can supply many nutrients to grazing sows. Bred sows and gilts on legume pastures require much less supplemental protein and only one-half as much concentrate as those in dry lots. An acre of good pasture should carry 8 to 10 sows. As a general guideline sows should receive 2 pounds of concentrate a day on good pasture with gilts receiving 3 pounds per day during pregnancy. During lactation, 2 to 3 pounds of 15 percent protein concentrate per 100 pounds body weight is recommended.

Once piglets are weaned, at approx 6 weeks of age, they can be raised in a separate pasture area. Many producers may also start with

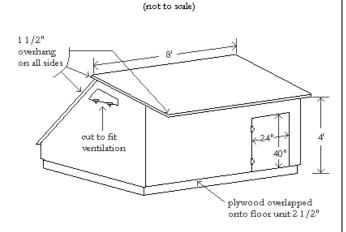
weaned pigs for their farm enterprise. Growing-finishing hogs in most cases should be full-fed (given concentrate feeds) while on pasture keeping stocking rates around 20 pigs per acre.

Facilities

Electric fencing works well for swine. Remember that you will need to train the pigs to the fence before letting them out in a large area. Electrified netting can also be used, especially with small pigs. Gathering areas or catch pens should be constructed with four foot wire mesh panels.

Huts can be home made from local lumber sources. Huts spread out on pasture provide sows with a place to farrow (give birth) and use as shelter during inclement weather. Making sure of adequate room for sow and piglets is necessary to prevent accidental crushing of newborns by the sow.

Finished Plywood Hut Diagram



http://www.clt.astate.edu/dkennedy/hut.htm

Tom Frantzen, a pasture pork producer in Iowa, advices that 75 square feet may be the best farrowing hut size to allow adequate size for the sow and piglets. Huts that are smaller than this may cause more piglet mortality due to crushing when the sow lay down. Huts can be bedded with straw or poor quality grass hay.

Handling and Labor Requirements I. Health

Sows managed in pastures are generally in good health and incidence of respiratory disease and feet and leg problem are reduced. However, since rotating pastures does not eliminate parasites, rigorous control programs need to be used. Seek advice from your veterinarian about parasite control and vaccinations for the mature herd.

Iron shots may or may not need to be given to newborn piglets, depending upon their exposure to iron in the soil. Some research has shown growth and health benefits for newborn piglets given iron shots even in outdoor systems. Consult with other local hog producers that also use pasture systems for recommendations.

Labor requirements are highest for farrowing, feeding and rotating animals among pastures.

II. Management

Obtain breeding stock from farms that are using pasture systems or gradually expose traditionally raised animals to the conditions they will face when managed outside.

Shade is an important factor to keep in mind when placing hogs on pasture. Swine cannot sweat and need to cool through panting, therefore in summer they may need water cooling systems (sprinkler on hose, manual wetting). Providing adequate water is essential, especially during hot weather.

Castration of male pigs should be performed before two weeks of age. This is done with a knife by making two small incisions and removing the testicles. Only proficient persons should perform this task. Educational opportunities can be sought from your veterinarian or extension personal.

Cornell Swine Specialist

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Reproductive Statistics for Swine				
FEMALE				
Age of puberty		4 to 7 months		
Breeding weight		150 to 175 pounds		
Estrous cycle				
	Interval	Avg. 21 days		
	Duration	2 to 3 days		
	Signs	Standing when hand		
		pressure placed on		
		back		
Ovulation		12 to 36 hrs from		
		onset of standing		
		heat		
Gestation length		114 days		
Breeding season		Year round		
MALE				
Age of puberty		8 months		
Breeding weight		150 to 175 pounds		
Bree	eding season	All year		
Bree	eding ratio	1 boar : 25 sows		

Level of Skill

Pros:

- Potential for lower feed cost than traditional systems
- > Use of land not suitable for crops
- Premium prices paid for pasture raised pork

Cons:

- More labor required for handling, feeding and watering
- Labor requirement high during farrowing
- > Susceptible to parasites
- > Pasture management is critical
- > Adverse weather conditions

Animal Source

To locate swine producers in New York State contact:

New York State Pork Producers James Patsos, Executive Secretary 315-568-2750

Market Availability

Many producers raise hogs to sell as feeder pigs for other small farms, 4-H kids exhibiting at local fairs or summer barbeque season. Other marketing channels are local farmers markets, freezer trade and restaurants.

Niman Ranch is a company that works with farms across the US to raise hogs under specific guidelines. They require farms to use pasture or deep bedded packs and prohibit use of antibiotics and growth-promoting hormones. For more information about the Niman Ranch Pork Company contact them at: 2551 Eagle Avenue, Thornton, Iowa 50479, phone: 641-998-2683, www.nimanranch.com or Paul Willis, Manager, pwillis@frontiernet.net

Resources

Mark S. Honeyman is Coordinator of Iowa State University Research and Demonstration Farms and Associate Professor in the Department of Animal Science. Honeyman has written many articles on sustainable hog production and is currently doing research on hoop shelters and Swedish deep-bedded group nursing systems.

Mark S. Honeyman Iowa State University B1 Curtiss Hall Ames, IA 50011-1050 (515) 294-4621 or (515) 294-3849; Fax: (515) 294-6210

The 1999 three-ringed binder entitled Swine Sourcebook: Alternatives for Pork Producers is an excellent collection of scientific publications, popular press articles, and on-

farm examples of sustainable swine production; hoop structures, pasture systems, and many other areas. To order, send a check or money order made out to the University of Minnesota for \$17.50 plus \$4.00 for shipping to:

Distribution Center 20 Coffey Hall 1420 Eckles Avenue St. Paul, MN 55108-6069 (800) 876-8636 Item number is PC-7289-S

Budget

Incom	e amount/sow G	eneral estimate	Your estimate		
*Given two litters/yr with 7.5 live piglets/litter, keeping 2 gilts as replacement animals					
Finished barrows & gilts					
*	250 pounds \$.70/pound x 13 pigle	ts \$ 2275			
*	.25 Cull sows 400 pounds x \$.20/p	ound \$ 20			
	Gross income/sow	\$ 2295			
Evnone		\$ 4495			
Expenses *Given two litters/yr with 7.5 live piglets/litter					
· GIVEII	Concentrate for sows	\$190			
•					
*	Concentrate for growing pigs	\$1480			
*	Bedding cost	\$ 26			
*	Veterinary medications	\$ 5.50			
*	Buildings and fences	\$ 30			
*	Marketing and hauling	\$ 25			
*	Vehicle, fuel, utilities, etc	\$ 20			
*	Breeding cost AI/boar	\$ 35			
	Operating cost/sow	\$1811.50			
	Net receipts/sow	\$ 483.50			

For More Information

Small Farms Program 135c Plant Science Building Cornell University, Ithaca, NY 14853 www.smallfarms.cornell.edu

ATTRA

Appropriate Technology Transfer for Rural Areas, P.O. Box 3657, Fayetteville, AR 72702 http://www.attra.org/livestock.html

Niman Ranch Pork Company 2551 Eagle Avenue Thornton, Iowa 50479 641-998-2683 www.nimanranch.com

Pride-of-the-Farm, Hawkeye Steel Products Box 2000, Houghton, Iowa 52631

Maryland Small Ruminant Page www.sheepandgoat.com

Practical Farmers of Iowa http://www.practicalfarmers.org/

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