

Heritage Breeds for Today's Needs



Who is the Livestock Conservancy?

- National non-profit (501-C3)
- Membership organization
- Focuses on genetic conservation
- Works with farmers and others around the country to preserve heritage breeds
- Established in 1977
- Headquartered in Pittsboro, NC





Our Mission

To protect endangered livestock and poultry breeds from extinction



Turkeys



Donkeys



Cattle



Goats



Horses



Sheep



Pigs



Rabbits



Chickens



Ducks



Geese

Why are breeds endangered?

- Modern agriculture favors the use of a few specialized breeds.
- Breeds that don't "fit the mold" are being lost.
- Breeds that are being lost contain valuable traits and genetics that may be needed in the future.
- Breeds = GENETIC DIVERSITY!
- Loss of Breeds = Loss of Genetic Diversity.



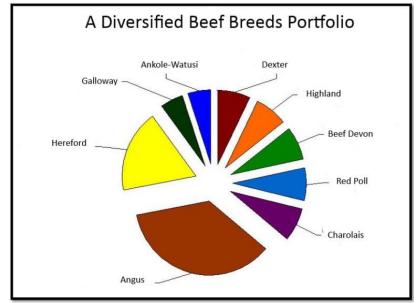


Why does genetic diversity matter?

Agriculture's stock portfolio – diversifying secures our assets!

Learning from the past:

- Irish Potato Famine (1840's)
- Panama Disease & Gros Michel Bananas (1950's)





Are We Learning Yet?

Today's Lessons:

- Russet Burbank Potato Vulnerability
- Cavendish Bananas & Tropical Race 4 Disease





Securing Rare Breeds







- Protects our food system;
- Ensures genetic diversity for the evolution of agriculture
- ✓ Conserves valuable genetic traits
- Captures our heritage, history, and culture
- Maintains breeds of animals that are well-suited for sustainable agriculture
- Gives small family farms a competitive edge.

Conserving Our History





- Heritage breeds are living embodiment of America's history
- Many of the breeds that created them are gone, so if the breed were to disappear, once they are gone, they are gone forever

Heritage Breeds Rise to Climate Challenges

Weather Extremes: Greater temperature swings, All-or-none rainfall

Hardy and adaptable breeds will rise to the challenge







Sustaining the Land



Heritage breeds are especially suited to sustainable systems such as rotational grazing

Natural Advantages of Heritage Breeds



- Hardy
- Good foragers
- Parasite resistance
- Good mothering skills
- Longevity
- Multipurpose breeds
- Variety in food and fiber

Incorporating Heritage Breeds into Sustainable Systems



Heritage Animals on Your Farm

Select breeds that are appropriate for your needs, land, and climate. Finding the right fit means less work & healthier animals.





Allowing Mother Nature to work with you is wiser than becoming her constant opponent.

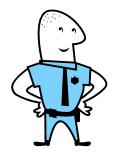
Choosing Breeds that Fit Your Farm

Factors to consider:

- Production needs What do you want to do?
- Size
- Climate
- Husbandry & care
- Rarity in your area
- Temperament
- Does the breed appeal to you?



Heritage Breeds are Multitaskers















Ossabaw Island sows

What Kind of Enterprise

Feeders

- Can be purchased as weanlings
- Priced lower than breeding quality
- May not be registered



Guinea and Ossabaw piglets

Breeders

- Purchase older youngsters that have filled out
- Animals should be registerable*
- Will be priced higher
- Ask for breeder guarantee

Before buying:

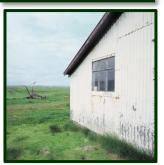
Plan for:

- Secure Pen or Pasture
- Appropriate feed
- Clean, fresh water
- Deworming
- Minerals
- Shelter
- Safety
- Veterinarian









Not all heritage animals are good representations of their breed

- Select animals based on breed standard and productivity.
- Only the top 10% are good enough to become breeding stock.
- Do your homework before buying!



How You Can Find Rare Breeds



- Livestock Conservancy:
 - Breeders directory
 - Classifieds
- Breed associations
- Network with breeders

SECURING RARE BREEDS



What Does it Mean to be a Rare Breed Steward?

Pros

- Contributing to past and future
- Better fit for your farm goals
- Rich stories
- Captures customer interest
- Making a difference



Cons

- Rare finding breeding stock
- Genetic base is narrow
- Breeding requires more thought
- Progress takes time
- Direct marketing products
- Products are "different"

Securing Rare Breeds

What does it take?

- Enough animals
- Enough breeders
- Knowledgeable breeders
- Careful selection practices
- Energetic promotion of products and services
- Working together



Conservation Breeding



Goal: Maintain genetic variability It's about more than finding the best bull!

- Get educated
- Maintain bloodlines
- Use males for only one season
- Combining inbreeding and outbreeding
 - Parallel herds, spiral breeding
- Maximize contribution of females

Selection

- Restoring lost productivity
- Balance production with adaptive traits
 - Hardiness, longevity,
 maternal traits, parasite
 resistance, heat/cold
 tolerance, fertility
- Cull on adaptive traits,
 select among remaining



Niche Marketing

Examples from Successful Heritage Breeders

- Identifying new jobs for old breeds
- Capitalizing on niche marketing
- New products
- Diversified products



More Value from your Livestock

- Many traditional animals were multipurpose and represent free labor to the farmer
- Can you think of additional uses for your animals?
 - Clearing brush and timber
 - Guardian for other livestock
 - Sell manure to compost facilities
 - Use cow chips to produce biofuel
 - Ecotourism



Working together

Good at breeding?

Partner with others
Or
sell more animals as

feeders

Co-marketing
Good communication



Should I?



Self-Assessment

- Skills assessment
- Financial Needs / Goals
- Lifestyle & time assessment

Research the Proposed Enterprise

- Talk to lots of people: livestock farmers, breeders of heritage animals, extension, Virginia Tech
- Research market opportunities **Resource Evaluation**
 - Infrastructure
 - Financial Assets

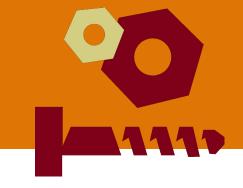
The Livestock Conservancy's Role

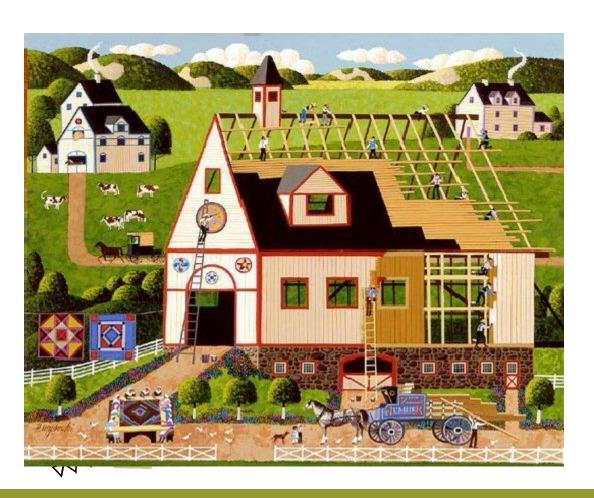
- Network connections
- Technical Support
 - Deciding on breeds
 - Finding breeding stock
 - Breeding plans
 - Marketing
- Breeds Research
- Breeder education
- Promotion





Nuts and Bolts of the Work





Support

Train the Next Generation

Promotion & Outreach

Secure the Base

Secure The Base

Livestock Census

Census





HORSES			Š	
aread	Year	U.S. Registrations	Global Population	Source of U.S. Data
Alchal-Telke	2012	500		Scimate
American Cream	2012	(7		Registry
Armerican Saddlebned	2012	1,905		Regiony
Appaloom	2010	4,912		Estimate
Arablan	2010	4,939		Szimate
Beiglain	2011	2,000		Registry
Boulennais	2011		<1,000	
Carradan	2011		195	
Camplain	2011	16	1,710	Registry
Cleveland Rey	2011	229		
Colontal Spanish (Banker)	2011		101	Estimate
Colonial Spanish (Selsky)	2012	-20		Estimate
Colonial Spanish (Certast)	2012	-20		Estimate
Colonial Spanish (Chactaw)	2012	200-200		Estimate
Colonial Spanish (Florida Cracker)	2009	95	1,021	Registry
Colonial Spanish (Marsh Tacky)	2012	229	209	Registry
Colonial Spanish (New Mexico)	2012	-100		Satimate
Colonial Spanish (Pryor)	2012	80-120		Estimate
Colonial Spanish (Santa Crus)	2012	45		Registry
Colombil Spanish (Sulphur)	2012	50-150 ²		Estimate
Colonial Spanish (Willbur-Cruce)	2009	6		Registry
Oydesdale	2011		404	
Parket	2011	£15	2 000 2 000	Berline.

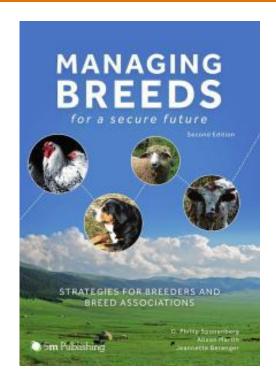


Learning

Member Support

Working with Breeders

- Education on conservation breeding
- Herd-specific breeding plans
- Genetic Analysis





Learning





Card Grading Videos Available on You Tube

Learning

Elementary Education

4-H Embryology Project "Chicks in the Classroom"







- Genetic Distance
 Mapping for
 Heritage Chicken
 Breeds
- MHC Variation in Rare Breeds



Heritage Swine Reproduction Study















- 70 breed associations and horse industry leaders
- Sharing best practices, Co-promotion, Reproductive breakthroughs
- Herdbook and genetic analysis

American Milking Devon

Funded by: The Manton Foundation

Genetic Conservation

- Herdbook analysis
- DNA
- Semen collection

Production & Promotion

- Milk testing 75 cattle!
- Survey



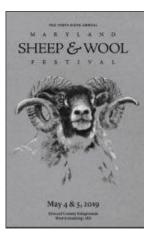
Shave 'Em to Save 'Em



>1600 Fiber artists Rarewool.org





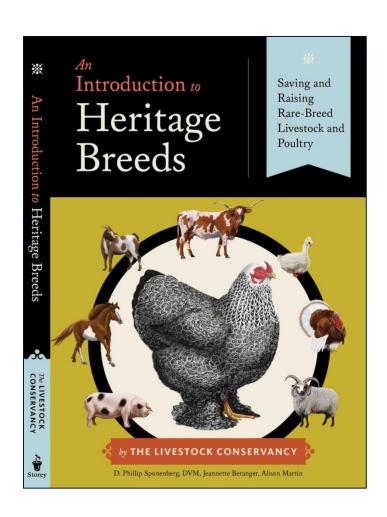


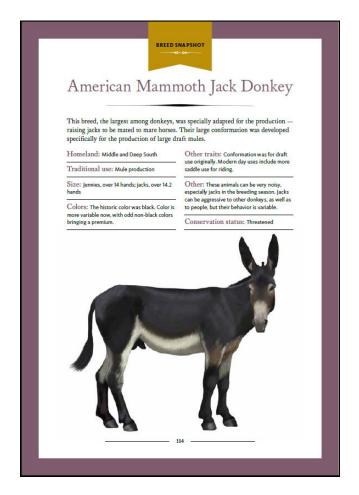
Microgrants



Josh & Josiah Freier American Milking Devon project Ashley Pierce Silver Fox rabbitry expansion

Want to Learn More?





Want to do more?

Share the Excitement!















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Question s and Sharing

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