

Report on **The Conservation Breeder's Handbook**, (Jane Dobrott)
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Published by The American Livestock Conservancy

Handbook- The ALBC has produced a handbook which covers everything essential for the conservation breeder. We as Spanish Barb breeders are the stewards of a precious and rare resource to the horse breeds of the world. As such, we have a heavy responsibility to balance genetic diversity with breed standardization.

Why is it important to conserve the Spanish Barb?

Extinction of breeds within the species can cause a species to lose some of its characteristics, adaptability and utility.

Name some breed characteristics that you admire in the Spanish Barb:

Mild temper, thriftiness, quick-witted, sensibility, physical soundness, reproductive efficiency, unique genetics, and historical significance are a few.

Are some of these characteristics lost in modern breeds?

What is a breed?

A breed is defined as a group of animals selected to have a uniform appearance that distinguishes them from other groups of animals within the same species. Members of a breed type when mated together reproduce the same type. The conservation of many distinct breeds is the best way to protect genetic diversity within each domestic species.

Landraces or Feral Populations

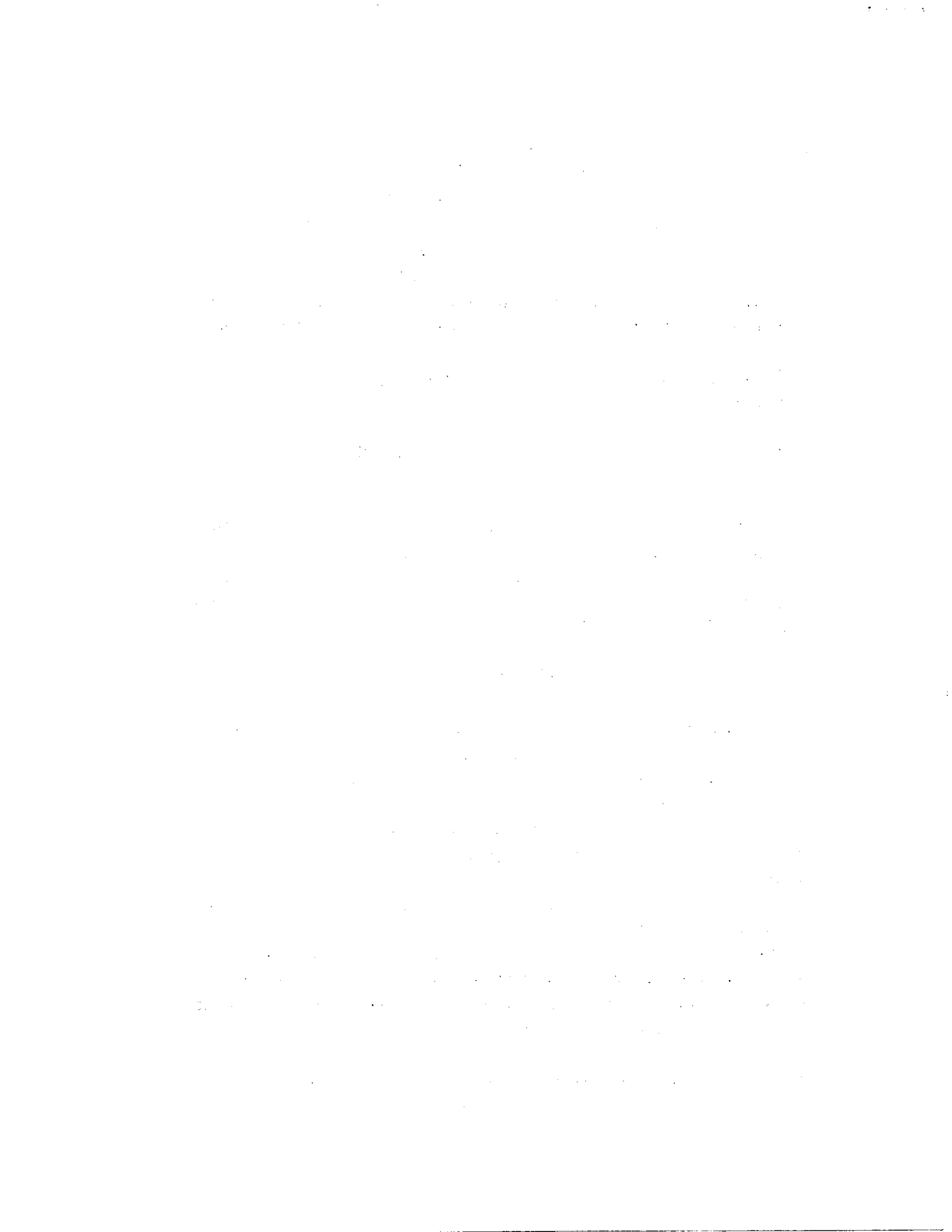
The various strains making up the Spanish Barb breed began as landraces or feral populations.

Landrace-Local populations that are consistent enough to be considered breeds, but are more variable in appearance than are standardized breeds. These landrace breeds are unique due to founder effect, isolation, and environmental adaptation. Founder effect refers to accidents of history that led to the introduction of certain types of animals to new areas; these "founders" are the sole genetic base of descendant populations.

Feral-Domestic livestock that have escaped or been released from human ownership and returned to the wild are feral. The genetic significance of feral breeds includes environmental adaptations and relict traits not found in improved breeds.

List the Landrace or feral bloodlines of the SBBA:

Belsky, McKinley, Sun, A-Ka-wi, Coche and Wilbur-Cruce are the bloodlines.



these breed types is to maintain the existing genetic variation that was in the past selected by nature. It is practically impossible to replicate such selection pressures under human management. Even with a very careful conservation program, feral and landrace breeds will gradually be transformed under human management, and at some point is no longer what it once was. Conservation breeding can ensure that a good portion of the genetic diversity represented is not lost.

Breed Associations and Networks-A person who becomes a livestock breeder also becomes a part of a community of livestock breeders. This community usually includes a breed association that is an organization of individuals who own, admire, and promote the breed. The association facilitates communication between breeders and allows individuals to participate in making policy for the breed. Split of a breeder community is often caused by a dispute over breed registry rules. While this cannot always be avoided, a split is generally to the detriment of the breed as it disperses breeder's resources and may lead to a split in the breed's gene pool.

A major responsibility of a breed association is the operation of a registry of animals within the breed, with rules for their registration. It is important that breeders register their animals; failure to do this is a disservice to the breed. Non-registered, undocumented animals are wasted, lost both to a breed's history and to its future.

Context of conservation Breeding-Breed conservation has five elements, each essential for success:

1. Knowledge of breed history and characteristics.
2. Evaluation of numerical and genetic status of the breed to determine its needs, both in terms of numbers and maintenance of existing genetic diversity. Distinct bloodlines or historic breed types that represent significant genetic resources within the breed should be documented and conserved. Do we have individuals that fit in this category? **What are significant genetic resources?**
3. A determination of the place of the individual herd within the breed, with the understanding of how the specific herd best serves the long term genetic needs and existing network of the breed. **How do we do this?**
4. The design of a breeding program for a specific herd, using the

ALBC conservation programs that follow: Using several sires to maintain the genetic variation of the population, as represented by its distinct bloodlines. The managing of inbreeding, so that it does not affect the entire herd. Select for breed type, soundness, production, and also for improvement, when appropriate. Periodic re-evaluation of the numerical and genetic status of the breed, as well as the herd, and revision of the breeding program as needed.

Conclusion—"In the end we will conserve only what we love, we will love only what we understand, we will understand only what we have been taught." Baba Dioum

One hundred American breeds of domestic cattle, goats, horses, donkeys, sheep swine, chickens, ducks, geese, and turkeys are in danger of extinction. These breeds were carefully crafted by dedicated breeders to fit a range of conditions, tasks, and needs. Their beauty, dignity and usefulness were all celebrated and they were partners in both agriculture and culture.

What if these animals become extinct? The earth will have lost a unique segment of its biodiversity. Agriculture will have lost the genetic resources critical for adaptation to changing conditions and methods of production.

"The work of conservation rests mainly on individuals, but its success depends on communities of breeders....A network of several herds, each independently managed and selected, is the best way to assure that conservation occurs". *Handbook*