

Conservation and Our Heritage Breeds

By Jy Chipczak

Joywind Farm Rare Breeds Conservancy Inc. is a federally incorporated charitable organization dedicated to the conservation, evaluation and study of rare and minor breeds of farm animals. The Rare Breeds Conservancy works in the field of livestock genetic resource conservation - heritage breeds; it is a resource centre for rare breeds survival efforts.

About eight years ago, my wife, Gail, and I founded the Rare Breeds Conservancy on our farm, located on rocky shield country north of Belleville, Ontario. I became interested in rare breeds after working on a documentary about plant genetic conservation for CBC's *The Nature of Things*. And, during visits to Turkey and Africa, Gail and I discovered there were groups committed to the preservation of rare breeds. We also discovered upon our return, that no similar group existed in Canada. Slowly, Gail and I, and our twins Megan and Gavin, found our lives changing - we have committed ourselves to the work of bringing rare and Canadian "heritage" breeds back from the brink of extinction.

Livestock breeding management over the past few decades, with its emphasis on intensive selection based primarily on productivity traits, has led to major declines in many of the older breeds of cattle, sheep, poultry and swine. For some, the decline is so drastic that they are on the verge of extinction. And extinction is forever.

In Canada, we have identified over 60 breeds of various species in need of conservation, including Newfoundland, Shropshire and Cotswold Sheep, Kerry and Canadienne Cattle, the Canadian Horse, the Newfoundland Pony, Berkshire and Tamworth Pigs,



Chris Martin, an employee with the Rare Breeds Conservancy, is pictured above with a Newfoundland Sheep.



Kerry Cattle, one of the breeds that had almost disappeared, is now being studied by scientists because it was discovered that its milk is pre-homogenized in the animal, which results in a smaller than usual fat globules. And if this milk can fill a specific "niche" market, it could be of high economic value.

and the Plymouth Barred Rock Chicken.

With the livestock industry focusing on so few breeds, not only are we losing breeds, we are also losing genetic diversity and flexibility within breeds. It would seem prudent to conserve genetic stocks, if only as an insurance against future contingencies.

Genetic conservation can be justified on historical, cultural, aesthetic, recreational, biological, scientific, agricultural and economic grounds. It is needed to sustain and improve agriculture in the future.

Many of the rare and minor breeds are known for their ability to forage on poor land, low cholesterol and fat levels, ease of parturition, mothering ability, or resistance to disease. These traits may become of commercial importance to our animal breeders - but only if they are still available.

Aside from their scientific and economic value for future breeding programs, these breeds are in themselves part of our cultural heritage, representing centuries of controlled breeding by man. They are part of our history and deserve protection. The Canadienne Cattle breed is a prime example.

The Conservancy links rare breeds, or gene resource conservation, to the ideologies and practices of sustainable agriculture. Modern agriculture is based upon very short term monetary goals. The industry (a term that often ignores such concepts as husbandry and true stewardship) does not look to the long-term - 100 years down the well-rutted road. A sustainable agricultural program must look at all of the contingencies that will play a role in molding tomorrow's agriculture. The question of tomorrow can't be

answered today! For this reason, we must look at the whole concept of animal and plant gene conservation and soil and water conservation as our insurance policy for the future.

One only has to look at some of the specific traits being lost in our domestic animals to see the dangers looming in the future. Because of production gains in the turkey industry, for example, birds can no longer mate naturally and artificial insemination is the supporting technology. Fertility is also declining in this industry.

In the cattle and dairy industries, such traits as foraging ability, disease resistance and mothering abilities are being lost; and, other traits are not being considered, such as drought tolerance, rusticity and longevity. Industries that are totally dependent upon artificial inputs - medical and dietary - are being built. Often, high tech management systems (zero graze, animal constraints and artificially controlled atmospheres) do not take into consideration that they are working with living organisms.

The Rare Breeds Conservancy's niche in all of this is the conservation of livestock genetic resources. These efforts are not undertaken simply to preserve breeds as relics, to be seen in a zoo-like setting, but as viable agricultural animals whose special genetic traits will allow the changes needed to support our future agricultural system.

Some of the projects in which Joywind Farms are involved include:

- operating an active breeding farm with public access to and information on rare livestock breeds;
- managing and enlarging a gene bank of frozen semen for long-term storage;
- continuing the breeding programs for specific priority rare breeds;
- publishing and augmenting a quarterly newsletter - GENESIS - on livestock conservation;
- and, providing a student internship program.

Please consider extending your support of agricultural diversity to include the many livestock breeds in need of your help today. The Conservancy may be reached at: Joywind Farm Rare Breeds Conservancy Inc., General Delivery, Campbellford, Ontario, K0L 1L0, Phone:(705)653-0231 or Fax: (705)653-0232.

Jy and Gail Chipczak own and operate Joywind Farm Rare Breeds Conservancy north of Belleville, Ontario.