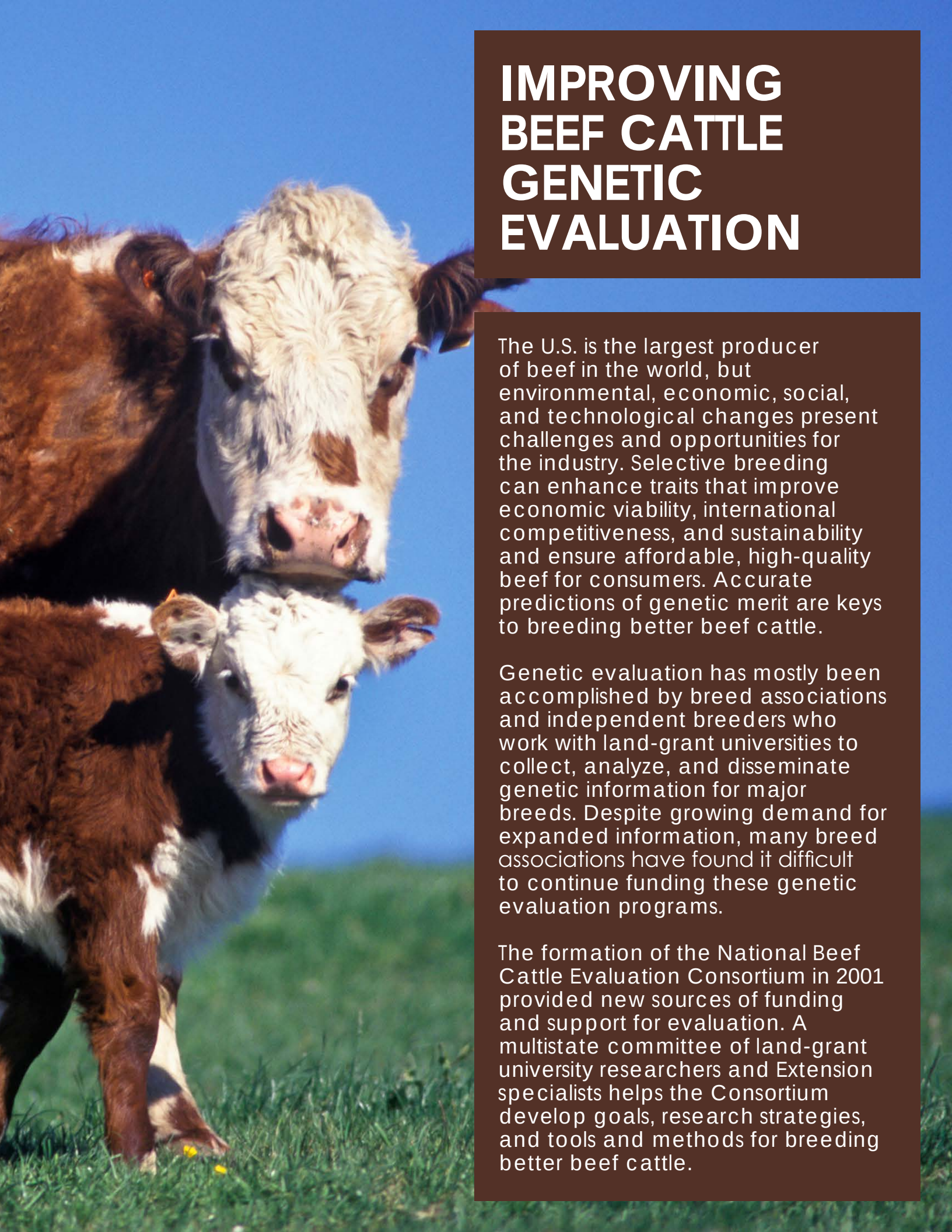

IMPROVING BEEF CATTLE GENETIC EVALUATION

The U.S. is the largest producer of beef in the world, but environmental, economic, social, and technological changes present challenges and opportunities for the industry. Selective breeding can enhance traits that improve economic viability, international competitiveness, and sustainability and ensure affordable, high-quality beef for consumers. Accurate predictions of genetic merit are keys to breeding better beef cattle.

Genetic evaluation has mostly been accomplished by breed associations and independent breeders who work with land-grant universities to collect, analyze, and disseminate genetic information for major breeds. Despite growing demand for expanded information, many breed associations have found it difficult to continue funding these genetic evaluation programs.

The formation of the National Beef Cattle Evaluation Consortium in 2001 provided new sources of funding and support for evaluation. A multistate committee of land-grant university researchers and Extension specialists helps the Consortium develop goals, research strategies, and tools and methods for breeding better beef cattle.

COMMITTEE IMPACTS

- The committee provides the only place where leaders in diverse areas of beef cattle genetic evaluation meet on an annual basis.
- Members involved with Extension and industry keep the research community aware of evaluation needs so they can prioritize meaningful research activities.
- Their work has led to greater investment in research that utilizes advances in bioinformatics, genomics, statistics, and computation and incorporates vast quantities of data from different breeds and countries. These advances are generating more accurate predictions of beef cattle traits, making it easier to enhance production.
- Discussion and work with private companies has led to design and implementation of improved cattle evaluation tools and methods.
- Innovation and standardization is maximizing adoption of new information and technology among cattle associations and producers. For example, several members are creating a national database for performance and pedigree information.
- Committee members create outreach materials and participate in educational programs, such as the national online animal breeding graduate program, the National Program for Genetic Improvement of Feed Efficiency in Beef Cattle, the Brown Bagger Series, the eXtension Beef Cattle Clearinghouse, and eBEEF.org. This keeps the industry up-to-date on cutting-edge tools and methods.

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