
DNA Fingerprinting to Debut at 1994 California State Fair



“The 21st Century has arrived and the livestock industry can now take advantage of this scientific advancement.”

The California State Fair is introducing a fascinating new technology for livestock identification — DNA fingerprinting. Planned exclusively for the Junior Market Steer Show in the summer of 1994, this will be the first livestock event in the world to incorporate the DNA matching technique for positive animal identification.

All DNA testing will be handled by Linkage Genetics of Salt Lake City, Utah. Linkage Genetics currently provides plant and animal breeders with Molecular Marker Technology and related services. The company has worked with numerous beef and dairy breed associations and producers.

“DNA fingerprinting,” also called “DNA matching analysis,” involves matching the DNA (deoxyribonucleic acid) from different samples of blood, semen, bone, hair and tissue (the Fair will be using blood). The DNA within each individual, be it human or bovine, is specific and different, even in members of the same family. DNA typing is the most accurate identification system known at this time. It is currently being utilized by the FBI and other law enforcement agencies. This technology is also successfully being used in human forensics world wide. In fact, DNA evidence was recently used in a Missouri court case to convict a suspect of cattle theft. In addition, several breed associations now use DNA parent verification exclusively for their herdbook.

“The California State Fair is constantly striving to incorporate the most advanced technology, industry standards and “cutting edge” procedures available to our industry

today. DNA fingerprinting is certainly one of those advances available for use and one that has unlimited applications,” said Michael Bradley, agricultural exhibit supervisor.

During the first year of the program, the California State Fair will require all junior market steers designated for entry have a blood sample collected at one of several official market steer registration sites prior to April 19, 1994 (120-day ownership deadline).

Upon arrival at the fair, all junior market beef animals will be required to have a second sample of blood drawn. From these two samples of blood a DNA matching analysis test may be run to verify that both blood samples match and confirm the identity of each animal. Any animal not having blood drawn will not be allowed to enter the 1994 junior market beef show.

Recognized as a true state-wide effort, the Fair will be working in cooperation with University of California-Davis, Cal Poly State University, San Luis Obispo, CSU Fresno, CSU Chico, Mt. San Antonio College and two to three California stock shows to coordinate market steer registration sites throughout California.

“The 21st Century has arrived and the livestock industry can now take advantage of this scientific advancement. After a successful 1994 is completed, our plans will include DNA fingerprinting in sheep and swine for future years,” said Bradley.

The California State Fair is set for Aug. 19 - Sept. 5 in Sacramento. Junior Beef Show dates are Aug. 19-22. For complete show information and DNA fingerprinting program requirements, contact: Michael Bradley, California State Fair, PO Box 15649, Sacramento, CA 95852; (916) 263-3137.

