

## **Expected Progeny Differences (EPD)**

This session will encompass 5 speakers and a panel Question and Answer session at the end. Each speaker will present information about a particular area of EPDs.

**Dr. Mark Enns** will illustrate the fact that alpaca breeders now have tremendous tool in EPD for making genetic improvement as evidenced by successful adoption and nearly four decades of use in the cattle industry. The achievements in that industry did not come without challenges beginning with initial breeder skepticism and misunderstanding of EPD to the unintended consequences associated with single trait selection. Dr. Enns will discuss how those successes and failures will serve as background for the successful use of EPD in the alpaca industry.

**Dr. David Notter** will highlight EPDs and show how they provide alpaca breeders with exciting opportunities to develop customized breeding programs to meet both personal and industry-wide goals for genetic improvement. Will discuss experience from the sheep industry which suggests a likely progression in use of EPDs that includes: 1) initial focus on a few core traits (e.g., fleece weight and fiber diameter); 2) expansion of the number of EPDs to include additional traits such as other histogram traits, body weight, etc.; 3) a period of “EPD Blowout” as the number of EPDs begins to exceed the breeders’ capacity to effectively use them all in breeding program; 4) development of Breeding Objectives and Selection Indexes that use EPDs to rank animals based on a single composite measure of anticipated genetic merit for overall fleece value; 5) consolidation of resulting Breeding Objectives into a few alternatives that can be used by groups of breeders to meet individual breeding goals. This presentation will discuss educational requirements and research and development needs to facilitate optimal future use of EPDs in breeding programs.

**Dr. Wayne Jarvis** will give you real world examples of how EPDs can and should be used to help alpaca breeders improve the genetics of their herd through better breeding decisions. He will also discuss how you have already been using EPDs in the alpaca industry to improve the next generation, and how you can now improve the accuracy of that process. Dr. Jarvis will illustrate through specific examples of ariEPD numbers how *and* how *not* to use EPDs.

**Mr. Mike Safley** will discuss how EPDs can and should be used to better market your alpacas. Mike will discuss EPDs and the ways that the industry will change as more owners and breeders begin to require EPDs before making buying and breeding decisions. Mr. Safley will also discuss the things that you can take advantage of right now to use EPDs to give you an edge on your competition.

As ARI's Chief Scientist, **Dr. Shauna Brummet** will discuss the evolution of the ariEPD program from inception to present. She will highlight the decisions that have been made on things include trait selection and fleece testing and discuss the process of developing the software to collect data, while discussing the steps that breeders can take to not only be involved, but easily submit their data for inclusion. Lastly, Dr. Brummet will discuss the future of the ariEPD program and the huge potential that it has for positively impacting the future of the alpaca industry.

At the conclusion of this session, there will be a question and answer session that will include the speakers above and **Mr. Darby Vannier**, the ARI Executive Director.