



## **Ideal Alpaca Community Speakers Bureau For Expected Progeny Differences Education**

All major livestock industries use Expected Progeny Differences (EPDs) to accelerate progress in their breeding programs. EPDs are rapidly becoming the wave of the future in the alpaca industry, and the Ideal Alpaca Community (IAC) is currently the only group in the US to be actively applying these methods. The IAC Speakers Bureau coordinates and schedules alpaca experts to help members of the alpaca industry understand the interpretation and application of EPDs in alpaca breeding. Speakers travel within the U.S. and conduct seminars for groups of alpaca breeders, AOBA affiliates, and participants at special farm events. We offer several different types of seminars and workshops, and the Speakers Bureau will guide you in developing a program based on the type of event and your audience's needs.

### **Purpose**

The Speakers Bureau's mission is to illustrate the importance of EPDs to the future of the alpaca industry, and to create an understanding of how the IAC's EPD program can help individual breeders accelerate the production of high value animals in their own herds. Instruction and examples illustrate how individual breeders can effectively use the Ideal Alpaca Community's EPD program to accelerate genetic improvement in traits critical to fiber quality and quantity. The ultimate goal is to help breeders produce alpacas with higher total value because of genetic superiority, finer fiber and greater fiber production.

### **Programs**

EPD seminars are scheduled whenever and wherever there is sufficient interest. We offer a core set of seminars and workshops, but these can be tailored to specific needs by request.

A few IAC EPD seminars have already been presented and more are scheduled. The "How to Cash-in Using the Ideal Alpaca Community EPD Program" will next be hosted by Magical Farms in Ohio on May 30<sup>th</sup>.

Descriptions of the current seminar offerings are shown on the next page.

**1. “How to Cash-in Using the Ideal Alpaca Community EPD Program”.**

Learn how the Ideal Alpaca Community is applying advanced science to improve the fiber quality and quantity. We will discuss fiber sampling, fiber evaluation and the science of BLUP (Best Linear Unbiased Prediction) in selecting the best males for your females to maximize the improvement in your alpaca herd. This seminar is best suited for alpaca owners and breeders who are intent on genetically improving their herds. The seminar gives an overview of animal breeding, EPDs and the IAC’s breeding and marketing programs. *See below for a detailed outline.*

Length: One day, including time for questions and answers.

Presenters: Mike Safley, Dr. Sara Via, Fred Kraft or Susan Muther.

**2. “How to interpret and use your EPD estimates to make breeding decisions”.** In this seminar, we first discuss how EPDs are interpreted, and how they can be used to accelerate a breeding program, regardless of its size. Then, we discuss a few examples in order to illustrate how to use EPDs in various real-world situations. Finally, we provide students with several different example situations and work in groups to determine appropriate strategies for EPD use. Half or full day. In the full day workshop, more time is allowed for group work, and time is provided for participants to discuss questions they may have about how to interpret or use their own EPD estimates (if desired, these may then be used as topics for further group discussions of strategy). We suggest that participants understand the basics of EPDs to the level of Seminars #1 before taking this course.

Length: Half or full-day

Presenter: Dr. Sara Via

**3. “Defining your breeding objectives and breeding for several traits at once.”** Attempting to improve several traits at the same time can be difficult. In this seminar, we discuss the problems of multitrait selection, and provide some solutions. We also discuss how to use a selection index to achieve the most rapid progress toward your individual breeding goals. Half or full day. Half day is an overview with examples presented by the instructor. In the full day version, we break into groups to practice analyzing specific examples (such as whether and how to breed simultaneously for fineness and fleece weight, or fineness and crimp). We suggest participants take this seminar after #2, described above.

Length: Half or full-day

Presenter: Dr. Sara Via

## How to Cash-in Using the Ideal Alpaca Community EPD Program

### I. Introduction

- A. The development of the Ideal Alpaca Community (IAC)
- B. History of the Ideal Alpaca Community and EPDs
- C. Benefits and Features of the IAC

### II. Definitions

- A. Phenotype
- B. Genotype

### III. Goals of Animal Breeding

- A. Genetic improvement
  - 1. Selection intensity
  - 2. Genetic variation
  - 3. Genetic interval
  - 4. Selection accuracy

### IV. Analyzing Pedigrees

### V. Progeny Testing

### VI. Heritability

-- *Break* --

### VII. Fleece Reports

- A. Understanding Histograms
- B. Fleece traits
- C. Fiber Sampling
- D. Adjusting for differences

### VIII. EPDs

- A. BLUP software
- B. Definitions
- C. Calculating EPDs
- D. Reporting EPDs

### IX. Reference Sires and Genetics

- A. Studmaster™ Males

-- *Lunch* --

### X. How EPDs are reported

- A. Sample report
- B. Prediction Error (PE)
- C. Using EPDs for purchasing
- D. Using EPDs for Marketing
- E. Raising the bar

### XI. Current EPD statistics

- A. Adjusting EPDs for sex, age, etc.

-- *Break* --

### XII. Multiple Trait Selection

- A. Independently inherited measures
- B. Genetic Antagonisms

### XIII. The Role of Studmaster™ Males

- A. Future Studmaster™ male selection
- B. The selection process

### XIV. The ABCs of EPDs

- A. Alpaca Fiber Market
- B. Bloodlines
- C. Competitive advantage

-- Break --

### XV. IAC Membership

- A. How to participate
- B. Creating the shear list
- C. Expanded benefits
- D. Marketing advantage
- E. Joining the IAC

## Questions and Answers

## Speakers Available

- **Mike Safley**, founder of the Ideal Alpaca Community and owner of Northwest Alpacas, Hillsboro, OR. Mike has spent over 25 years working on behalf of alpacas and developing and industry based on this remarkable creature. He was a member of the original group who initially imported the first alpacas to the U.S. He is the author of four highly regarded books about alpacas and has written over 100 articles on alpacas and the alpaca industry. Mike is a past president of the Alpaca Owners and Breeders Association (AOBA), the Alpaca Registry Inc., and was founding editor of Alpacas Magazine. Mike is a senior AOBA alpaca judge and has judged shows in Peru, Australia, Canada and the United States. Mike created the first Alpaca Fest in 1992 with Don Julio Barreda as the guest of honor. Mike is a frequent speaker and has presented alpaca seminars in the US and abroad.
- **Sara Via, Ph.D**, Professor of Biology, University of Maryland, and owner of Meadowlark Farm Alpacas ([www.meadowlarkalpacas.com](http://www.meadowlarkalpacas.com)), Ellicott City, MD. Sara has been using the techniques of statistical genetics since 1980. Trained in genetics and statistics at Duke University and the University of Chicago, she applied the statistical methods of animal breeding in her research on how animals adapt to new environments. She has taught these tools to students at University of Iowa, Cornell University and the University of Maryland. Sara has received grants to support her research from the National Institutes of Health, the National Science Foundation, and the USDA, and she has given over 100 seminars in the US and internationally. Sara began breeding alpacas in 2006 in order to use her training in genetics in a more practical way, and she has been

the Genetics Editor of the Ideal Alpaca Community since 2007. Sara's goal, whether she is teaching Introductory Biology to college students or EPDs to alpaca breeders, is to break complex topics down into simple parts that are easy for everybody to understand, regardless of their background.

- **Fred Kraft**, Director of Marketing, [Northwest Alpacas](#), Hillsboro, OR. Fred has been part of Northwest Alpaca team for five years. He has created and delivered over a dozen different classes and seminars on almost every aspect of alpaca business, from animal husbandry to alpaca tax benefits. Prior to Northwest Alpacas, he spent over a 25 years in computer and technology sales. Fred has been involved in the IAC and EPD programs since their inception.
- **Susan Muther**, Partner & Creative Director, [Breedworks](#), Oneonta, NY and co-owner of HaSu Ranch Alpacas, East Meredith, NY. Susan is an award-winning designer with vast experience specializing in all forms of visual communication with an emphasis on brand development and implementation in both off-line and on-line arenas. Prior to starting BreedWorks, Susan served as International Creative Director of Pricewaterhouse-Coopers, President and Creative Director for The Idea Bank, and Art Director for Saatchi & Saatchi, The Graphic Expression and Chermayeff & Geismar. Her work covers a wide range of projects including identity system and logo development, annual reports, corporate web sites, marketing collateral programs and ad campaigns. Clients include IBM, Reader's Digest, Chase Mellon Securities, Dime Bank, Bell Atlantic, Fujitsu, Liz Claiborne, Neiman Marcus, NBC and many more. Award credits include those from Communication Arts, Print Magazine, AIGA, and the prestigious Kudos for Design Excellence. In addition to her work in graphic design, Susan has an established reputation as an accomplished fine artist, both in painting and illustration.

### Scheduling a Speaker

To learn more about the IAC Speakers Bureau, or to arrange an IAC EPD seminar, please contact Fred Kraft at [fred@alpacas.com](mailto:fred@alpacas.com). He is delighted to share additional details and provide insight on arranging a successful seminar at your site. You can also reach Fred by phone at 503-628-3110.