382 Essential Skills for Future Equine Sports Rehabilitation Careers. Sarah A. Reed\textsuperscript{1}, University of Connecticut

Abstract: The field of equine sports medicine and rehabilitation is rapidly expanding with increasing career opportunities for individuals (non-veterinarians) in equine rehabilitation facilities. However, throughout the United States, there are limited educational opportunities for undergraduate students to prepare for this career. The objective of this study was to determine what practical skills and theoretical knowledge are deemed most useful for employment by professionals in this industry. To meet this objective, an online survey was distributed through email and social media to veterinarians, veterinary professionals, rehabilitation service providers, and horse owners. In addition to demographics, the survey asked respondents to list practical skills and theoretical knowledge that are essential for professionals in the equine rehabilitation industry. The majority of the 117 respondents (84\%) were located in the United States, with the remainder from Canada (5\%), the United Kingdom (5\%) and several other countries. Eighteen percent of respondents were veterinarians, 26\% owned or managed rehabilitation facilities, 8.5\% were veterinary technicians, and the remainder were horse owners, rehabilitation service providers, and others. Horse handling skills (19\%) and communication skills (18\%) were the most commonly listed practical skills deemed essential for rehabilitation professionals. Of the theoretical skills, evaluation of lameness (29.5\%), anatomy (31\%), and fundamentals of equine reconditioning programs (32\%) were deemed similarly important for rehabilitation professionals. Together, these data indicate that an educational program in equine sports rehabilitation should include fundamental knowledge in lameness evaluation and rehabilitation methods as well as significant hands-on opportunities with rehabilitating horses and communicating about rehabilitation methods and progress with clients.

Keywords: equine, sports rehabilitation, undergraduate education

383 Scientific Training Programs for Undergraduate and Graduate Students: Applied Animal and Food Science. Charles W. Starkey\textsuperscript{1}, Jessica D. Starkey\textsuperscript{1}, Auburn University

Abstract: Training in animal sciences can be difficult to cover in a comprehensive manner. So many different areas are necessary to prepare students for the multiple employment opportunities afforded them upon graduation. This is an approach where students are trained in both experiential animal husbandry techniques as well as some areas of fundamental sciences. A farm to fork approach is being taken to demonstrate the varied areas of the industry and assist students in finding their preferred discipline. Initially, students are taught the basics of nutrition and animal food manufacturing to expose them to this aspect of the allied industry. Practical interactive methodology for raising both poultry and swine are developed through the daily welfare checks conducted by students twice daily at our research facilities. Through these activities students are taught to properly observe and conduct practices of feeding, welfare needs of animals, and health observations. Husbandry techniques are taught and demonstrated and then students are allowed to develop their competency through both participatory and observational methodologies during animal management observations with experienced students and advisor input including questions and answers. Exposure of animal performance objectives and management are delivered to better prepare students for the live animal aspect of the production industry. Additionally, students are involved in actual protein conversion and production of food for human nutritional needs. Students may not fully comprehend opportunities and applications of the protein conversion side of industry. Practical experiential learning is achieved through first-hand experience in the aspects of the protein production industry. Using food science technologies and interactive examples, students also learn about production of pet foods derived from low value co-products from both mammalian and poultry protein conversion. Exposure to both initial meat production and further processing unlocks opportunities for students and their employment success indicates the success of this approach.

Keywords: poultry and swine, scientific training program, teaching