

University Livestock Sale Provides an Exceptional Teaching Tool and Effective Program Support



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Abstract

The Hokie Harvest Sale is a public auction of university-owned horses and beef cattle and is the culmination of two undergraduate courses taught in the Department of Animal and Poultry Sciences at Virginia Tech: “Equine Behavior and Training” (APSC 2724) and “Livestock Merchandising” (APSC 3764/AT 0294). Students in “Equine Behavior and Training” are responsible for training, fitting, and presenting horses in the sale. Students in “Livestock Merchandising” organize, advertise, and conduct the sale along with halter-breaking and presenting beef cattle. Practical, authentic experiences in handling and training livestock and in conducting a public auction provide valuable opportunities for students to learn a variety of aspects of livestock merchandising while participating in an exciting, well-supported, and well-received event. Skills and knowledge attained from both classes have enabled students to conduct successful livestock sales on their farms or to obtain gainful employment in the livestock and equine industries and with various breed associations. Gross sales from the two separate auctions have exceeded one million dollars over the 11-year history of the sale and are channeled directly into the departmental beef cattle and equine programs, providing much needed financial support.

Introduction

Participation in organizing and conducting the Hokie Harvest Sale at Virginia Tech has allowed students to gain essential knowledge in livestock merchandising, to understand and accomplish marketing objectives, and to prepare for smooth transition into the agricultural industries. Economic returns in livestock operations are greatly affected by buying and selling decisions (Petritz et al., 1982). University students have learned that the marketing process consists of more than just selling commodities that are produced (Kennedy et al., 2001). To market effectively, one must have a sustainable program and an in-demand product. Income from livestock sales is highly dependent upon quality of the product, costs of marketing, and manner in which the product is presented (Jack and Eversole, 1997; Kohls and Uhl, 1998; Kennedy et al., 2001).

Industry leaders and other employers have stated that agricultural business graduates have adequate technical knowledge but often lack skills associated with oral and written presentation, team management and public relations (Gunn, 1983; Radhakrishna and Bruening, 1994; Bruening and Scanlon, 1995). Practical learning experiences are often lacking in the undergraduate education process (Bekkum, 1993). Successful and satisfying learning is accomplished effectively when students are involved in realistic learning situations and the application of practical economics (Hunter, 1982; Laney 1988; Carlson and Schodt, 1995; Henneberry and Beshear, 1995). Student surveys favor integration of professionals to teach proper practical information, thus easing the transition from college to the work force (Henneberry, 1990; Stoll, 1988; Hoerner, 1994). The primary objective of this paper is to illustrate how two undergraduate courses at Virginia Tech provide formal training in applied livestock merchandising and marketing.

Methods

Background

Employers of graduates were surveyed by the Department of Animal and Poultry Sciences (APSC) at Virginia Tech (VT) in 1993 concerning the level of preparedness of recent graduates and their ability to become valued employees. The survey indicated that college students would be more attractive to prospective employers if, during their undergraduate careers, they had experienced more realistic events associated with the agricultural industry. Faculty met with alumni and employers and devised a plan to provide students with such experiences. The major result of this collective effort was to craft an undergraduate course “Livestock Merchandising” that would take advantage of the wide range of expertise of APSC alumni in various careers. Alumni who are auctioneers, photographers, advertisers, livestock marketers, sale managers, etc. have been invited to guest lecture on these topics in the undergraduate course. The culmination of the course is the Hokie Harvest Sale, a public auction of beef cattle and horses owned by VT. The existing course “Equine Behavior and Training” was modified so that one of

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its major emphases is to fit, train, and present horses for the Hokie Harvest Sale. The first year of the Hokie Harvest Sale was summarized by Jack and Eversole (1997).

Livestock for the beef cattle and equine programs are obtained from two primary sources. Horses and beef cattle are often accepted as donations. In addition, semen and embryos are frequently donated and some of the resulting offspring are ultimately selected for the Hokie Harvest Sale. Breeding herds for both species are maintained so young stock are available for sale from the breeding programs each year.

“Livestock Merchandising” Course

“Livestock Merchandising” is a junior-level course in which several guest lecturers from the horse and beef cattle industries donate their time and offer their expertise to present class lectures. These professionals from the industry inform students on various aspects of merchandising, photography, advertising, catalog production, presentation of sale animals, and organization of auctions. The class meets for 11 weeks during the 15-week semester; students work intensely from late August through the end of October to prepare for the sale.

This two-credit course is a business elective for both APSC and Agriculture Technology (AT) majors and is an agricultural and/or free elective for non-majors. Four-year students must have completed 45 credits prior to enrolling in the course (i.e., must be at least second-semester sophomores) while AT students in the associate degree program must be in their second year to enroll. Annual enrollment in “Livestock Merchandising” averages 63 students in which 54% are APSC majors (Table 1). Female students have comprised a mean of 53% but have

been as high as 70% in 2003 (Table 1). These statistics are typical of the high proportion of female students in other APSC courses at VT.

“Livestock Merchandising” is one of two courses taught in the APSC curriculum that has both baccalaureate and associate degrees students. Since this is a “hands-on” course that employs the basic principles of livestock merchandising (Evans, 2006), students in the two-year AT program (29% of enrollment) complement the four-year students extremely well in the organization, preparation, and execution of successful sales. Student performance, motivation, and study habits generally differ between the two types of students, but the nature of this class allows students to work together harmoniously and to experience the “team” concept. Administrators of the AT curriculum quickly recognized the importance and value of the course after its inaugural year in 1995. Advisors in AT have encouraged their students to enroll and, as a result, AT enrollment has ranged from 18 to 38% in this combined course of two-year and four-year students.

“Equine Behavior and Training” Course

“Equine Behavior and Training” is a two-credit undergraduate course. The course provides students with lectures, demonstrations, and horse handling opportunities that address basic safety procedures, equine behavior, horse-human interactions, and a wide variety of training techniques and philosophies. On a weekly basis, each student participates in six hours of laboratory class during which horses are handled and trained. A professional horse trainer teaches the horse handling activities and supervises all training techniques. Students also attend a one-hour lecture period each week during which all students meet together, providing a forum to review scientific literature pertaining to equine behavioral research and to discuss philosophies of the sale and timing of sale activities.

Enrollment for “Equine Behavior and Training” has always been limited by two factors: (1) number of horses available and (2) keeping individual laboratory sections small in the interest of safety. In recent years four laboratory sections have been offered in fall semester, each limited to 12 students. Because the course is required for graduation by students in the Equine Emphasis in the Department of APSC, graduating seniors are allowed to enroll first. After

Table 1. Course Demographics (Enrollment, % APSC1 Majors, % AT2 Majors, and % Females) for the Undergraduate Courses “Equine Behavior and Training” and “Livestock Merchandising” from 1995 to 2005

Year	“Equine Behavior and Training”			“Livestock Merchandising”			
	Total Enrolled	% APSC Majors	% Female	Total Enrolled	% APSC Majors	% AT Majors	% Female
1995	28	71	96	46	76	0	48
1996	40	63	88	46	54	20	41
1997	34	79	91	67	60	30	49
1998	29	90	86	61	44	33	42
1999	36	86	89	82	63	21	57
2000	36	100	89	80	58	28	55
2001	38	100	92	68	40	38	47
2002	48	81	92	59	42	37	54
2003	38	89	89	47	49	32	70
2004	46	85	93	68	47	31	57
2005	48	81	96	71	61	18	65
Total	421			695			
Mean	38	84	91	63	54	29	53

¹APSC = Animal and Poultry Sciences

²AT = Agriculture Technology (two-year program)

all graduating seniors have enrolled; APSC juniors and Equine Production minors are allowed to enroll. Therefore, the majority of students in the course (84%) are APSC majors (Table 1). Generally only a few male students enroll each year so the course is taught to an audience that is 91% female (Table 1). This reflects the high proportion of female students enrolled in the APSC Equine Emphasis over the last decade.

Each student in “Equine Behavior and Training” is assigned a partner and a horse. The two students in each partnership work together during all laboratory sessions. For each partnership only one horse is handled at any particular time. This stipulation allows each student to have an assistant while handling his/her horse. Even with a maximum of six horses being worked at any particular time, there are always two instructors available for safety, individual instruction, and supervision. One of the instructors is a professional horse trainer, the second is an experienced teaching assistant. Although this teaching model is quite intensive in terms of instructor time, it has been effective and safe. Having each horse handled and trained by a pair of students allows the students to achieve significant progress. The partnerships also allow students to interact with horses of more than one age group and disposition.

Weanlings, yearlings, two-year-olds, brood mares, and riding horses take part in the training class. Weanlings and yearlings are acclimated to a wide range of basic skills such as leading, grooming, bathing, clipping with electric clippers, blanketing, and loading onto trailers. Two-year-olds are introduced to bits, bridles, side reins, and saddles, although they are not ridden in class. Time is spent with all horses on the obstacle course or “playground” where they are exposed to cavaletti, tarps, tires, bridges, beach balls, bicycles, umbrellas, and other distractions. Routine handling of young horses from birth until they are marketed ensures that prospective buyers can purchase horses that are well socialized, well adapted to human companionship and handling, and appropriately trained for their ages.

Results and Discussion

For more than a decade, both “Livestock Merchandising” and “Equine Behavior and Training” have been well-received undergraduate courses in the APSC curriculum at VT. Students are enthusiastic and appreciate the opportunity to experience an authentic activity in preparing for and conducting a public auction. The Hokie Harvest Sale is a highly publicized departmental event that instills pride in the students and a willingness to work hard for success. Many students enroll for the two courses in different years so they will be involved with the sale twice during their undergraduate careers. This repeat participation is in complete agreement with Evans (2006).

“Livestock Merchandising” - Educational Benefits

“Livestock Merchandising” offers a wide assortment of educational benefits to the students. Integrating industry specialists as guest lecturers in a course that emphasizes interpersonal, communicative, financial, and cognitive thinking skills has been popular over the past 11 years. Many of the invited speakers are graduates of VT and are professionals in some aspect of livestock sale management or animal agriculture. Interaction among students and speakers allows students to network and start building business relationships with potential employers prior to graduation, agreeing with Henneberry (1990).

Speakers provide students with essential information in livestock marketing and enhance success of the Hokie Harvest Sale. Students are exposed to applied marketing principles, sale management philosophies, and responsibility for developing sale catalogs, creating sale advertisements, managing the auction, clerking, budgeting, and public relations.

Although this course has no written examinations or quizzes, there are several assigned projects that are closely associated with the concepts and philosophies integral to class objectives. Expectations for the quality and timing of these assignments are clearly stated in the syllabus and repeated during class time prior to due dates. One assignment requires each student, prior to the Hokie Harvest Sale, to observe a dispersal, consignment, or production livestock sale or a state-graded, feeder cattle sale. A checklist of questions for the field trip report is distributed and explained to students during the first week of class. Students are to follow the guidelines and pay close attention to detail. All field trips are independently scheduled by students and are not supervised by the instructor. A report with prices marked in the sale catalog or on the sale sheet is submitted for grading within 10 days. Because the student population over the last two decades has had dramatically declining farm and livestock experience, this assignment is invaluable. Many students indicate that this exercise is their first experience attending a public livestock auction. Students gain a clearer understanding and knowledge of the duties and functions of the various committees formed to allocate responsibilities for the Hokie Harvest Sale. Kennedy et al. (2001) have reported that a university livestock sale provided numerous experiences and practical knowledge to students, which far exceeded the expectations in a typical lecture course.

Effective advertising is a critical part of producing a public livestock auction. After several guest lectures addressing sale management, livestock photography, creative advertising, and catalog production, students are required to create two types of advertisements: 1) a one-page sale advertisement for the Hokie Harvest Sale, and 2) a one-page advertisement for one sale animal with three pertinent footnotes. Materials in the form of handouts, popular

press articles, and livestock sale catalogs are distributed prior to both assignments. These are useful in meeting the learning objectives of both advertisements. The advertising committee selects three of the sale advertisements from class members and uses them for publicity purposes. Students enjoy both advertising assignments because of the practical and experiential nature of the homework as well as for the creativity and competition they garner.

Lastly, a budget sheet is required from each student prior to the Hokie Harvest Sale to estimate total expenses as a percentage of the sale gross. All expenses are given to the students during the semester; it is their responsibility to record these amounts (see Table 2 for budget details). The fiscal nature of this assignment compels students to appraise the selling value of each sale lot in order to make a careful and accurate prediction of individual sale expenses as a percentage of the sale gross. Even though this course is restricted to junior and senior levels, a large majority of students struggle with the estimations of the sale lot values because of limited experience in the financial outcomes of livestock sales. Students seeking employment in the livestock and equine industries definitely need exposure to authentic situations such as the field trip, advertisement assignment, and budget summary required in "Livestock Merchandising."

"Equine Behavior and Training" - Educational Benefits

A variety of educational benefits result from student participation in the undergraduate course "Equine Behavior and Training," including (1) exposure to training philosophies and concepts, (2) demonstrations of training techniques and (3) experience in "hands-on" training of horses. Many students report that, of all their college courses, "Equine Behavior and Training" is the most useful, practical, and enjoyable.

Training Philosophies and Concepts: Over

the course of the semester, students are assigned a variety of readings from texts, popular press articles, websites and training books. They then present the information to their peers in a classroom situation. This provides experience in speaking before a group and fosters the use of accurate reporting and clear communication skills. General discussions follow and students are encouraged to analyze the information in the light of challenges and problems encountered with their assigned horses. By facilitating these discussions, instructors are able to encourage students to consider many training techniques, some conventional and some more eclectic. Persuading students to approach behavior modification in horses with an open mind and appreciation for a variety of approaches is extremely beneficial to the educational growth of students and is effective in enhancing the training process for horses.

The success of this approach is apparent over the course of the semester. Students enrolled in the training course may have considerable experience in interacting with horses or they may have had very little exposure to them. By exposing the students to the teaching approach described above, novice students usually advance quickly to the point where they interact safely and effectively with horses and develop proficient horse handling skills. Because the novice students have little to no background information, they readily accept effective training techniques offered by instructors.

Those students who have already had considerable experience with horses pose a different challenge to instructors. Experienced students often have rigidly structured concepts of how to handle horses and how to mold behaviors and activities in horses. Persuading these experienced students that there are different and perhaps better, training techniques than those that they already know can be a challenging task. Expanding the students' minds to accept differing training concepts can be difficult in some cases, but quite successful and rewarding. Often

these more experienced students comment at the end of the semester that they learned much more than they had anticipated. They frequently cite the classroom activities as being responsible for expanding their perceptions of equine training.

Demonstrations: In addition to reading and discussion of training philosophies, demonstrations of training techniques are a part of every class period. During these demonstrations, instructors show specific methods

Table 2. Hokie Harvest Sale Income Summary from 1995 to 2005

Year	Horse Sale			Beef Cattle Sale			Combined Sales	
	Lots	Gross Income	Mean Income/Lot	Lots	Gross Income	Mean Income/Lot	Gross Income	Expenses (% of Gross)
1995	28	\$40,755	\$1,456	31	\$35,440	\$1,143	\$76,195	5.79
1996	34	44,780	1,317	27	31,425	1,163	76,205	7.90
1997	18	46,200	2,566	26	38,100	1,465	84,300	7.63
1998	22	38,225	1,738	23	36,750	1,598	74,975	8.33
1999	23	35,675	1,551	22	37,125	1,688	72,800	8.98
2000	24	90,625	3,776	20	39,925	1,996	130,550	5.08
2001	28	52,925	1,890	21	40,625	1,934	93,550	8.61
2002	21	63,000	3,000	21	37,575	1,879	100,575	7.76
2003	24	81,800	3,408	19	39,325	2,185	121,125	6.33
2004	24	94,200	3,925	24	76,300	3,179	170,500	5.33
2005	23	84,485	3,673	27	79,425	2,942	163,910	6.07
Annual Mean	24	\$61,152	\$2,573	24	\$44,729	\$1,925	\$105,880	7.07
Total	269	\$672,670		261	\$492,015		\$1,164,685	

for achieving behavior modification in horses. Early demonstrations address basic skills such as haltering, leading, working horses at liberty or on line in round pens, ground driving, introducing electric clippers, spraying horses with water, desensitizing to various frightening stimuli, putting horses on trailers, navigation through obstacles on the playground, and teaching horses to yield to pressure. Later demonstrations include proper application, adjustment and appropriate use of tack and equipment (whips, lunge lines, bridles, saddles, sidereins, restraints, etc.).

Students are encouraged to inform instructors if there are particular aspects of equine training in which they are particularly interested. Every effort is made to include this information in the demonstrations. For example, the request to demonstrate proper techniques for harnessing, hitching a horse to a vehicle and driving is made in some years. Students with considerable background in riding often have never driven a horse. If an appropriately trained horse is not available in the class to present such a skill, a horse may be borrowed and brought into the class to provide the experience to students. These additional activities are greatly appreciated by the students and become highlights of the course.

Students are encouraged to contribute to demonstrations by showing alternate training methods they know for a particular skill. By requesting alternate training techniques of students, instructors enable and emphasize the importance of an open-minded approach to teaching and learning. Students acquire ownership in the teaching activities by contributing to the demonstrations and become more willing to accept constructive criticism from others as a result. This particular feature of the course is often indicated as an exceptionally positive one by students in semester-end assessments.

Hands-on Training Techniques: Although reading, discussion, and demonstrations are all important components of "Equine Behavior and Training," the most challenging part of this course is allowing students to interact with horses. Modifying the students' behaviors while in the presence of horses in a safe, effective manner is essential. Some students have considerably more rapport with horses than others and those who do have the gift of this affinity are not necessarily those with a great deal of experience. Teaching students to be aware of their own body language and to read the body language of horses can be quite simple in the case of students who have natural rapport with animals. For those students who do not naturally possess this ability, the reading of body language can be a difficult skill to teach. It is critical, however, for students to attain this skill so they can anticipate the horse's response to various situations. Success of the training process depends on the student's ability to understand how differences in his/her body posture, orientation with respect to the horse and smoothness of movement

affect the horse. Individual supervision of students by instructors is, therefore, absolutely critical, particularly during the early weeks of the class, and requires a high instructor-to-student ratio.

Perhaps the most challenging situation for instructors is those students who have considerable experience with horses in riding programs where the horses were experienced, calm, and well-trained. Students with such backgrounds often have a false sense of security regarding their equine-related abilities. It is critical that instructors convince these students that, while working with young, untrained horses, the students must refine their own body language and handling techniques while greatly developing their skills in reading body communication offered by the horse.

As students gain proficiency in basic handling skills, they progress as far as possible in training, given the capabilities and knowledge base of both horse and student. As a tool to measure progress, students are required to keep a daily journal documenting their horse work. These journals are collected on Fridays to be read by the instructors and returned to the students on the following Mondays. Requiring students to record what they have accomplished with their horses as well as any problems that they are experiencing allows them the opportunity for self-assessment and provides the instructors with indications of problems and successes achieved during the progression of class. The journals are an important avenue of communication during the semester. Students and their horses are also evaluated periodically throughout the semester. Instructors require that specific skills be demonstrated and grade student/horse teams on their ability to accomplish those skills. These "assessments" provide feedback on areas that need improvement.

Hokie Harvest Sale

The day before the sale, horses are transported to the sale facility and students are responsible for acclimating the horses to the demonstration arena, bathing and feeding them, and tending to their stalls. In mid afternoon on sale day, students present sale horses in hand. Some of the horses are then demonstrated under saddle or in harness if appropriate, although not by students enrolled in the training course. Students interact with potential buyers to answer questions and share information concerning the horses. Cattle are available for inspection for the week prior to the sale and on sale day. A complimentary barbecue dinner is served for all attendees prior to the sale. Starting times for the horse and cattle sales are staggered slightly with the horse sale beginning at 6 pm and the cattle sale at 6:30 pm in adjacent livestock facilities with the two sales running concurrently. Attendance ranges from 650 to 850 individuals, with tremendous repeat support

from local residents who attend the sale annually and from prospective buyers from surrounding states. Absentee and telephone bids have been received from individuals as far away as New England, California, New York, Florida, Georgia, Texas, and Montana.

The Hokie Harvest Sale has realized a gross income of \$1,164,685 through sales of beef cattle and horses over its eleven-year history (Table 2). Gross income for the beef cattle sale has ranged from \$31,425 to \$79,425 with mean of \$44,729 +/- \$16,582. Respective values for the horse sale are \$35,675 to \$94,200 with mean of \$61,152 +/- \$22,550.

Expenses associated with production of the Hokie Harvest Sale, expressed as a percentage of sale gross, average 7.07% with a range from approximately 5% to 9% (Table 2). These relatively low percentages result from the fact that students provide much of the labor for the sale at no expense and that responsibilities for sale management are shared by students and instructors, also at no cost. Local merchants donate some of the supplies needed for sale preparation (mulch for the sale rings, potted plants and pumpkins for decorations, etc.). Students are encouraged to be creative in their efforts to advise prospective buyers about the sale and to find area merchants willing to donate supplies for the sale. The two line items totaling the highest expenses for the sale are 1) printing and mailing the catalog and 2) the complimentary evening meal offered to all attendees. Members of the departmental Block and Bridle Club prepare the barbeque meal for a fee determined prior to the sale.

Summary

The Hokie Harvest Sale has become an important educational and financial component of the undergraduate teaching program at Virginia Tech, serving two major functions. First, undergraduate students are provided with practical and authentic experiences in merchandising livestock through a public auction. They gain an appreciation for the organization and details necessary to complete such an endeavor successfully and professionally. Secondly, with considerable decline in state-appropriated funding over the past decade, sale income significantly augments departmental and college resources.

Students describe "Livestock Merchandising" and "Equine Behavior and Training" as exceptionally realistic and enjoyable experiences. Both courses provide learning opportunities that prepare students for employment in the agricultural industries. Several of the classroom activities and educational objectives provide students with practical learning experiences that are often missing in animal science curricula. Ninety-eight percent of the respondents in a 2005 exit survey administered in "Livestock Merchandising" rated the course as either "excellent" or "good" and would recommend this course to a

fellow student. Unique employment opportunities have resulted for students involved in the Hokie Harvest Sale.

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