examinations; this expense is \$3.25 per hour for 20 hours per week during the two-month period of the course offering. Additionally, 1500 one-page brochures describing the courses are printed and sent via bulk mail to potential off-campus students. And, course handouts are sent with the first shipment of videotapes; duplication of this material costs five cents per page.

The United Parcel Service expense reflects the shipping of course materials to off-campus students located throughout Illinois, plus the returning of videotapes to campus. Address labels are affixed to envelopes for UPS shipments to and from students. Finally, faculty compensation is \$66 per off-campus student.

#### **Subsequent Semester Estimated Costs**

After the course has been shelved, WIU ASTE costs are estimated to total \$2395 per semester. This estimate assumes 15 off-campus students per semester.

#### Break-even Registration Fees and Enrollment

As already noted, both ASTE Agriculture courses considered herein are offered to off-campus students three times per year. Thus, ASTE costs are estimated to total \$7255 in the semester of video-taping and to total \$2395 in each subsequent semester, until the courses are again video-taped.

The WIU ASTE registration fee is the total cost to the off-campus student, with the exception of textbooks. The student is required to secure course textbooks from the WIU Bookstore.

If the registration fee is set at \$250 per course, break-even is estimated to occur after the course has been offered four times. Or, if the fee is set at \$300 per course, break-even is estimated to occur after the course has been offered three times.

#### **Potential Regional Impact**

Since its implementation in 1987, the ASTE program has served students in Illinois, Iowa, Missouri, and Indiana. Additionally, Western Illinois University has begun to enter into cooperative instructional programs with community colleges throughout Illinois, whereby ASTE video-taped courses are offered at these institutions. These institutions lease video-taped courses from the ASTE program in one of two manners: either via a fixed fee per semester plus a small additional fee per enrolled student, or via a fixed fee per student. The latter arrangement is attractive to those institutions whose enrollment in the ASTE course is below an agreed-upon number.

These institutions offer their students the option of registering for undergraduate credit or graduate credit, or for non-credit. Those students who enroll for undergraduate credit or for non-credit have video-taped instruction delivered via faculty and facilities of those institutions, while those who enroll for graduate credit are registered as WIU students and have instruction delivered directly by the WIU ASTE program.

#### Summary

The Western Illinois University Applied Sciences Televised Education program is designed to provide the off-campus professional with undergraduate and graduate courses. Courses are delivered to the student via video cassettes, and instruction is at the convenience of the student. The program has been demonstrated to be a cost-effective delivery method that satisfies the needs of off-campus students who are unable to attend class on campus.

### A NEED

# Student Safety in Agricultural College Science Classes

James H. Daniels

In recent years there has been an increase in concern among college and university faculty regarding both tort liability and their legal responsibilities to students. This concern should be of particular importance to the agricultural faculty — especially those who teach laboratory classes. Many of the routine student activities which occur in agricultural labs pose potential health or injury hazards to the students. Some examples of these are working with toxic chemicals, flammable materials and compounds, operating electrical or mechanical devices as well as machinery, handling and caring for livestock, traveling on field trips, etc. As reported by Connors, (1981), those educational activities involving hazardous components or devices require special emphasis be placed on safety assurances by faculty members.

Agricultural faculty members have a direct responsibility to insure the safety and well-being of their students. The responsibility stems from three bases: moral, professional, and legal.

#### **Moral Basis**

In a morally conscious society, every individual is expected to carefully safeguard their actions and decisions in a manner that will at all times minimize the risk of creating a hazard to others. It almost goes without saying, no rational, sane, or moral individual would intentionally fail to exercise a level or standard of care that would result in injury to another person. Traditionally and historically, agricultural programs and faculty have taken pride in their concern for, and interest in, the individual students and their well-being. The moral responsibility for providing a safe learning environment is a major element of this tradition.

#### **Professional Basis**

In the interest of maintaining the high standards and principles of good scientific agricultural programs at all educational levels, it is the professional responsibility of every faculty member and administrator to constantly monitor and update all areas

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of safety. The profession deserves this and so do the students. Certainly it is agreed that personal injury, especially when caused by carelessness or negligence, severely damages the reputation and image of the faculty, administration, the department, and the institution.

#### Legal Basis

College professors, along with everyone else in society, are legally responsible for the consequences of their actions (or lack of actions). Because of their professional positions and educational background, college faculty members may be held to a higher standard of care than an ordinary person. (Kern, et al, 1969). Kern identifies the "reasonable man (person)" theory. All actions related to negligence are judged against the hypothetical actions or precautions that would have been taken by a reasonable person in that situation. This concept may appear to be somewhat of a double standard; however it must be noted that the hypothetical "reasonable man (person)" for a college professor is different than the counterpart for an ordinary person. In short, the legal expectation regarding the care of college students by faculty is greater.

#### **Tort Liability**

According to Hazard (1978), tort is a legal term referring to a civil wrong perpetrated in the absence of a contract. Torts are divided into two classes, intentional and unintentional. Accidents resulting in injury to students as a result of proven negligence or carelessness on the part of the faculty member are primarily considered to be in the latter case. Being unintentional does not in anyway diminish the responsibility or liability of the actor (faculty member). Negligence is the key word from a legal standpoint. According to Alexander, et al. (169):

Negligence is conduct falling below an established standard which results in injury to another person. It involves an unreasonably great risk which causes damage or harm to others. Negligence differs from an international tort in that negligent acts are neither expected nor intended. With negligence, a reasonable man (person) in the position of the actor could have anticipated the harmful results.

An accident which is unavoidable and could not have been prevented by reasonable care does not constitute negligence. No liability exists for an unavoidable accident.

To have a valid cause of action for negligence, certain prerequisites must exist. The necessary elements are:

- 1. A duty on the part of the actor (teacher) to protect others against unreasonable risks;
- 2. A failure on the part of the actor to exercise a standard of care commensurate with the risks involved;
- 3. The conduct of the actor must be the proximate (or legal) cause of the injury; and
- 4. Injury, actual loss or damage must result from the act.

### Recommended Procedures to Reduce the Risk of Negligence

- 1. Safety instruction must be incorporated into each ag lab class as an integral part
  - a. Stress it with a positive approach.
  - b. Make it a priority of the entire department and college.

- c. Involve the students in safety awareness; encourage them to look for and report any potential hazards.
- d. Inspect all facilities, materials, and equipment frequently.
- e. Use safety posters and special warnings.
- f. Demonstrate proper use of all equipment and facilities.
- g. Incorporate safety items in exams.
- h. Make certain that proper first aid supplies are readily available.
- i. Never allow students to perform activities or operate devices until they have been adequately instructed.

#### 2. Personal Protection

- a. Require all students to wear proper clothing and eye protection.
- b. Require respirators in dusty or toxic environments.
- c. Require ear protection in areas of loud noise.
- d. Make certain that all equipment safety devices such as shields are used.

#### 3. Accident Records

- a. Adopt a policy of requiring all accidents to be reported to the instructor.
- Use a standardized accident report form
  make sure to interview eye witnesses.

#### 4. The Lab Environment

- a. Equipment and furnishing should be arranged to provide adequate exit aisles.
- b. All chemicals must be properly labeled.
- c. Provide adequate ventilation and lighting.
- d. Properly store all chemicals.
- e. Make certain that proper student supervision is available at all times.
- f. Mark all exists and non-exits.
- g. Make certain that all outside doors open to the outside.

#### 5. Official Travel (field trips)

- a. Obey all traffic regulations.
- b. Use only approved vehicles.
- c. Do not overload vehicles with passengers.
- d. Make certain that all vehicles are properly insured.
- e. Make certain that all drivers are currently licensed to operate the vehicle.

#### 6. Liability Insurance

- a. Find out the type and amount of liability insurance that is provided by the institution for faculty members.
- b. Purchase additional personal liability if necessary. Membership in some professional organizations includes liability insurance.

## Examples of Agencies That Will Assist With Safety

1. State and Federal Governments — Occupational Safety and Health Act (O.S.H.A.), P.L. 91-596

NACTA Journal — March 1989

- 2. National Institute for Occupational Safety and Health (N.I.O.S.H.)
- 3. National Safety Council (N.S.C.)
- 4. Farm Industrial Equipment Institute (F.I.E.I.)
- 5. National Fire Prevention Association (N.F.P.A.)
- 6. National Institute for Farm Safety (N.I.F.S.)
- 7. American Society of Agricultural Engineers (A.S.A.E.)

#### Summary

In general, the courts have held that faculty members have a direct responsibility to provide a safe learning and working environment for the students. Granted that college students are, for the most part, mature and responsible adults; however, the fact remains that many of the activities of agricultural classes are potentially hazardous and that faculty members have a moral, professional and legal responsibility to provide this.

#### References

Connors, Eugene T., "Educational Tort Liability and Malpractice," Phi Delta Kappa Publications, Bloomington, Indiana, 1981.

Hazard, William B., Education and the Law, 2nd Edition. Collier MacMillan Publishing Company, New York, 1978.

Kern, Alexander, et al, Public School Law, West Publishing Company, 1969.

### Designing a Senior Level Livestock Marketing Course

W.L. Mies and G.D. Harkey

Teaching an effective livestock marketing course has been and continues to be a difficult task because of the rapidity of change in markets and market structure. For example, in 1983, just five years ago, no one was predicting a consolidation in the meat packing industry such as we have today. The effects of this consolidation have changed the way cattle are marketed and the strategies used to defer risk in livestock operations. Ongoing changes in consumer attitudes and lifestyles will undoubtedly cause further adjustments in our marketing methods. A livestock marketing course for senior level students must be one that provides them with the knowledge they need to responsibly market their product. Thus, a livestock marketing course must contain realism, practicality, foresight, and a technical knowledge of cash and futures markets. Because students usually have little or no background experience in livestock marketing, fundamental concepts must be taught as well as the more sophisticated techniques of risk management. A new livestock marketing course has been developed at Texas A&M to accomplish this objectives. The format of that course is discussed in this paper.

#### Description

The senior level livestock marketing course at Texas A&M is a two-credit hour, fifteen-week course taught during the senior year. The students have two hours of lecture per week in which they are presented the concepts, strategies, procedures, and practical information needed in the development of a marketing program. Accompanying the lecture course is a separate, one-credit hour laboratory course that meets once per week for two hours. The laboratory is designed to compliment the lecture course by providing hands- on experience in a problem-solving type environment relating to the material covered in lecture. For example, in the week in which breakevens

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are covered in the lecture, the laboratory will provide hands-on calculations of various breakeven problems (attachment 2).

The laboratory portion of the course is dominated by a problem handed out on the first day of class. In the problem, (attachment 3), the student is given a ranch through inheritance that carries a rather large debt. Cattle production costs are provided along with guidelines as to how much operating capital can be borrowed during the course of the problem. The student is then charged with the marketing of the calves produced and the total financial risk of the operation. Current cattle prices and futures and options markets are used by making available video quote machines with time and date stamp machines to verify trades. The students may use any marketing or risk management approach they wish.

At the end of the semester, a three- to four-page paper is written detailing the reasons behind their various marketing decisions as well as profit/loss statements showing the results of their trading in the cash market as well as the futures market. The entire problem comprises forty percent of their grade in the laboratory course. The portion of the grade determined strictly on profit/loss is curved from highest to lowest so that the student making the most money receives the maximum number of points while the student making the least receives the least number of points. Thus market fluctuations and opportunity for profitability are leveled. Students are allowed to speculate in the markets if they wish, but if they lose all their borrowed money, they are foreclosed on and must accept last place in the futures part of the problem. Students may day trade the market, but they must respond to margin calls, pay interest on money borrowed for margins and pay brokerage commissions.

The lecture course (attachment 1), is designed to provide the students with as many tools as possible early in the course to allow them the opportunity to use the tools in the laboratory problem. The lectures covering breakevens, futures markets, options markets, and market information are presented before the student is faced with weaning the calves from the ranch and making a marketing decision. The second