

Preparing Animal Science Graduates To Think Critically, Compare Logically, Decide Independently, Solve Problems Rationally, Communicate Effectively And Lead Decisively

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In the grand scheme of things, is it really important that a person be able to rank, visually, four market hogs and then to defend—in oral or written reasons—the thought-processes by which that decision was made? Is it actually of consequence that a person be able to grade or price a fleece, or carcass and to evaluate a subprimal cut relative to Institutional Meat Purchase Specifications? These things are important for several reasons, only one of which involves competing in an inter-collegiate contest.

The most important reason for learning to judge, evaluate, grade and price livestock, meat, wool, milk products and poultry products (hereinafter referred to as “judging”), for those who intend to pursue a career in meat, animal or food sciences, is to be able to intelligently describe and discuss (using appropriate nomenclature, vocabulary and vernacular) the endproducts of food-animal agriculture. And, even if a person does not pursue a career related to animal agriculture, huge personal benefits accrue from learning the principles involved in judging. To meet employer expectations, compete in the workplace and be perceived as an “educated” person, an animal science graduate must be able to: (a) think critically, (b) compare logically, (c) decide independently, (d) solve problems rationally, (e) communicate effectively, and (f) lead decisively.

Thinking Critically

To “think” is to formulate in the mind, to reason about, to reflect on, to judge, and/or to decide. In the context intended here; “critically” means characterized by careful and exact evaluation and judgment. Critical thinking is acquired in formal courses that emphasize application of previously ingrained facts/knowledge, use of logic in problem-solving, and implementation of principles involved in systems analyses. Ability to think critically can also be achieved in

judging because it provides opportunities to use careful/exact evaluation, memory-standards and comparative reasoning in decision-making processes.

Comparing Logically

To “compare” is to examine in order to note the similarities in or differences between and among things. “Logically” is defined as showing clarity and consistency of use of the principles of reasoning. Comparative reasoning is used, in opposition to memorization/regurgitation, in formal courses that require the weighing of options and consideration of consequences in solving problems. Ability to compare logically can also be achieved in judging because it provides opportunities to observe similarities in and differences among exhibits, use logic in ranking things from best to worst, show clarity and consistency in oral or written reasoning, employ memory-standards in assigning grades, and use mental gymnastics in solving prediction equations and in establishing prices.

Deciding Independently

To “decide” is to make up one’s mind, to reach a decision, and/or to pronounce a judgement or verdict. “Independently” means free from the influence of another or others, auto-

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mously, and/or by self-reliance. Success in many aspects of life depends in large part on independence of thought and action, and, of course, in thinking and acting appropriately. Ability to decide independently is taught in formal courses that use written or verbal examinations (quizzes and tests), force personal or economic decisions, involve independent research study and emphasize use of logic and rationale for problem-solving. Experience in independent decision-making is accomplished in judging because it requires each competitor—acting alone using only his/her own opinion—to make judgments about the relative merit, rank, grade, price, market desirability or consumer acceptability of an animal or animal product.

Solving Problems Rationally

To “solve” is to find a solution for, an answer to, or an explanation for, a problem. “Rationally” means exercising the ability to reason in a sound, sane and logical manner. Solving problems rationally is taught in formal courses in the general curriculum involving mathematics, statistical inference, business administration and economics as well as in agricultural sciences dealing with agricultural economics, animal nutrition, animal breeding and cap-stone animal production. Rational problem-solving can also be taught in judging because contest officials select exhibits, array them in problem-sets, groups or classes, and require students to identify solutions by use of comparative reasoning, mathematical logic, sound judgement, conformity-to-ideal concepts, rank-order principles, memory-standards and knowledge integration.

Communicating Effectively

To “communicate” is to have an interchange of thoughts or ideas, and to make known your thoughts or ideas. “Effectively” means having the intended or expected effect and/or serving the purpose. Communication skills are formally taught in speech, technical writing and seminar courses and periodically practiced in written or verbal examinations (quizzes and tests). Effective communication can also be perfected in judging because it offers opportunities for the competitor to make his/her thoughts and ideas known, in written or spoken reasons, to serve the purpose of explaining judgments and decisions, and with short-term feedback (reasons are assigned scores from 0 to 50) depending upon whether or not the intended effect was achieved. Student participation in academic quadrathlons and departmental clubs provides added opportunities to learn to communicate effectively.

Leading Decisively

To “lead” is to be first, to be ahead, to steer, to guide, and/or to show the way to, by going in advance. “Decisively” means having the power to settle a dispute or doubt in a firm, conclusive, resolute and determined manner. Nothing is provided in the formal coursework setting to encourage students to

develop skills in leadership, but participation in extracurricular activities (student government, departmental clubs, fraternities, sororities, etc.) provides opportunities for students to learn to lead. Decisive leadership skills can be polished in judging activities because team members who succeed by ranking high, as individuals, in intercollegiate competitions are respected and often emulated by their peers and thus have opportunities to lead and to guide plus the power to settle disputes.

Why Have Intercollegiate Judging Contests and Competitions?

In the grand scheme of things, is it important for a person to be involved in judging contests and competitions? Dr. James Shanteau (Kansas State University) in a 1978 bulletin (*Psychological Abilities Of Livestock Judges*) concluded that “Compared with experts in medicine and law, livestock judges appear to have unusual abilities to make complex judgments; and, the training program used to develop livestock judges has a clear impact on skill and judgmental strategies.” In 1999, Dr. Jack McAninch (Chief of Surgery, University of California—San Francisco General Hospital) said “I give credit for whatever success I have achieved in the medical profession to my experiences as a member of the livestock judging team at Texas Tech University. The decision-making skills I learned in judging are the same as those I use—everyday—as a surgeon.” At the *Outlook For Future Leaders In Agriculture Conference*, in 1988: (a) Dr. Lavern Barrett (University of Nebraska) said “Research, common sense, and experience tell us that many of our agriculture graduates are not ready to lead,” and (b) Dr. Bruce Ghiselin (Center For Creative Leadership, Greensboro, NC) said “Leadership, rather than management, is needed for the more generalized understanding of today’s real-world problems.” I believe that administrators of Departments of Animal Science should insist that, within the B.S. curricula, there are opportunities for undergraduates to participate in student clubs, academic quadrathlons and intercollegiate judging competitions to serve as an integral part of the process of developing leadership skills.

Lorraine Stuart Merrill, in a 1989 issue of *Hoard’s Dairyman*, quoted three adults, who earlier in life had been members of dairy judging teams, as saying: (a) “I was a shy teenager who gained self-confidence by being on a judging team. Now, here I am—an outgoing young woman—who has a successful career in public relations.” (b) “Judging can help you even if you’re not going into an agricultural career. An eye for details, observational skills, quick decision-making skills and the ability to defend and justify your decisions are skills that will serve you well in whatever you choose to do.” (c) “Everything I’ve done goes back directly or indirectly to my judging experience, especially in college. Working with people in sales, my knowledge of cattle helps me gain the respect of people much more quickly. Judging helped me gain confidence in myself and my abilities—that’s important in my work and in my whole personal life.”

Jim Whitt (Whitt Enterprises), at a management conference in June 2001 said, "What credentials do I have to do management consulting, professional speaking and weekly newsletter publishing? I have a B.S. degree from Oklahoma State University in Animal Science...and, more importantly, I changed from a timid, unsure-of-myself sophomore to one confident that I could do anything by being on the meat judging team at OSU." These comments would be echoed by literally tens of thousands of highly successful people, now in the

workplace, who—once upon a time—decided that the time and effort required to compete for a position on a judging team was well worth it.

**Definitions of terms are from The American Heritage Dictionary of the English Language published by American Heritage Publishing Company, Inc., and Houghton Mifflin Company (Boston, MA).*