Teaching/Undergraduate and Graduate Education

M325  Cooperative Real Education in Agriculture Management at the University of New Hampshire. A. B. Conroy, P. S. Erickson, K. M. Aragona*, and E. Hatungimana, University of New Hampshire, Durham, NH.

The 2-semester CREAM (Cooperative Real Education in Agriculture Management) course is an experiential and capstone experience for students in any major. Students participate in 4 h of classroom activities/week, including a business meeting and committee meetings with students serving on each committee for 6 wk. Weekly 2-h education sessions allow students to choose activities, lectures, and speakers related to running a dairy farm. The hands-on components include managing a herd of 25 dairy cows daily, including milking, feeding, heifer care, sire selection, designing rations, and monitoring the health and reproduction weekly. Students elect class officers to facilitate this flipped course. The president runs the business meetings and leads the students in reviewing committee reports and work, helping lead decisions on educational programming as well as cow management. Two faculty, a grad student, and farm manager advise the class, with veto power if student decisions are not in the best interest of the herd or academic and hands-on skill development. The course has no exams or term papers, but students peer grade each other 2×/semester (60% of grade) and must complete a self-evaluation based on set criteria, which provides feedback on learning outcomes. Students are graded by faculty (40% of grade) on a mini-lecture related to dairy cattle management, and taking on and following through with individual responsibilities. These include chores, maintaining the website, writing for or editing the newsletter, running open houses, and leading tours, planning a dairy-related class trip, planning the annual banquet, or recruiting students for the following year. Students are also encouraged to show initiative in solving issues related to herd management. Half of the students return for 6 wk the next year to train the new students, thereby demonstrating their competency in all areas. Challenges in running the course include making sure students take on responsibility and ownership in their education and the herd, encouraging their initiative and creativity, while ensuring a healthy and productive herd in a public university setting. Working together as a team and communicating all decisions and activities with each other and the farm manager have also been essential to success in the course.

Key Words: undergraduate, teaching, experiential

M326  Teaching final-year veterinary students about dairy cattle welfare. T. F. Duffield, L. J. Levison*, and D. B. Haley, University of Guelph, Guelph, ON, Canada.

A 1-wk elective rotation for final-year veterinary students began in 2016 at the Ontario Veterinary College (OVC), University of Guelph, to teach current scientific knowledge and practical elements of dairy cattle welfare. The rotation was developed as a response to a veterinary curriculum mapping exercise that identified gaps in welfare training, and from a private funding opportunity from Saputo Inc. to train veterinary students about dairy cattle welfare. The main objectives were to train students to (1) recall existing dairy welfare standards and recognize deficits; (2) carry out practical on-farm dairy cattle welfare assessments; (3) communicate with clients and colleagues about animal welfare. The rotation runs twice per academic calendar with a maximum of 12 student participants per offering; 6 spaces held for OVC students and 6 spaces for students from other American Veterinary Medical Association accredited schools. Learning is a balance of seminar style/interactive teaching, on-farm, student exercises, and open discussions around key and current dairy welfare issues. Students are evaluated through participation, presentations on key dairy welfare issues and farm reports prepared after conducting a proAction animal care assessment. Central components of the rotation are: defining welfare; identifying and prioritizing welfare issues affecting dairy cattle; Canada’s proAction animal care assessment; cull cow decision-making, disbudding procedures; management of down cows and euthanasia decisions; students training in lesion scoring, lameness, and body condition; farm tours with a welfare focus. To date rotation effectiveness has been evaluated with student feedback. Students from the 5 veterinary colleges in Canada and veterinary students studying in Illinois, and Michigan have been involved in the elective. Financial support of Saputo Inc. to create this elective is gratefully acknowledged.

Key Words: welfare, veterinary