

MINUTES
SENATE AGRICULTURAL AFFAIRS COMMITTEE

DATE: Thursday, January 25, 2018

TIME: 8:00 A.M.

PLACE: Room WW53

MEMBERS PRESENT: Chairman Rice, Senators Patrick, Bayer, Guthrie, Thayn, Harris, Jordan

ABSENT/ EXCUSED: Vice Chairman Den Hartog, Senators Foreman

NOTE: The sign-in sheet, testimonies and other related materials will be retained with the minutes in the committee's office until the end of the session and will then be located on file with the minutes in the Legislative Services Library.

CONVENED: **Chairman Rice** called the meeting of the Senate Agricultural Affairs Committee (Committee) to order at 8:02 a.m.

INTRODUCTION: **University of Idaho (UI), Brent Olmstead**, Assistant Dean, College of Agricultural and Life Sciences (CALs), introduced his fellow colleagues and speakers for the upcoming presentations.

PRESENTATION: **University of Idaho, College of Agricultural and Life Sciences and Research Extension. Dr. Michael Parrella**, Dean, CALs, focused his discussion on the Research and Extension Centers; he noted how things are changing in the areas of research and the challenges they, as a university, face in keeping up with these changes to better serve the agricultural industry in the State of Idaho. UI currently has nine Research and Extension Centers across the State and owns approximately 4,000 acres of land. **Dean Parrella** discussed the importance of the Research and Extension Centers. The Centers, as a combination of science and education, are a valuable resource of information for growers; they offer the convenience of walk-in and on-site diagnostic tools for both insect contamination and plants under stress from disease.

Their goals as a university, to better serve agriculture and to recruit and keep the best faculty and graduate students, are impacted by the issues they currently face in the Research and Extension Centers. He discussed three major issues that had the greatest impact upon these goals: 1.) aging facilities; 2.) aging labs; and 3.) outdated information technology. The average age of the buildings is around 50 years with an estimated replacement cost of \$100 million; the deferred maintenance costs are estimated around \$48 million.

Secondly, **Dean Parrella** mentioned the need for molecular-based labs. He pointed out that they are vital in today's world of DNA technology. Molecular-based labs are not only informative, they also help move technology forward. They aid in precision agriculture by helping in pest diagnostics, identification, and early detection of new invasive species. He discussed nematodes as a major pest that affects Idaho crops. He then discussed the wireworm. He passed around a sample containing live wireworms. These worms attack and cause considerable damage to some of Idaho's major crops, including potatoes, sugarbeets, and wheat. Studies done in Moscow, Idaho have identified seven to eight species of wireworms, each of which appear to differ in biology.

Thirdly, **Dean Parrella** mentioned CALs' needs for updated information technology. Research and Extension Centers are evolving; there is a need for

greater interconnectivity within, and across centers. There is also a need for cross-discipline participation and collaboration between scientists. This, in turn, creates a demand for current computer hardware and software. There are also mobile needs for on-site diagnostics and assistance in training and education.

He emphasized the link between modern facilities and hiring and keeping the best faculty and graduate students, keeping the college more competitive at a national level for federal funding. He added that approximately 25 percent of their staff is due to retire within the next five years. **Dean Parrella** concluded his presentation with a brief discussion of some of the more current work done to modernize their facilities and their plans for moving forward. Improvements include: a new classroom facility in November 2017; graduate housing; a new facility at the Aberdeen Research and Extension Center; and new offices in the Nancy M. Cummings facility in Salmon, Idaho. In March 2018 they have plans for a "visioning session" in Parma, Idaho; they plan to do commodity research incorporating crops from the past, present, and future. **Dean Parrella** stated that they anticipate an investment of \$25 million over the next five years.

Senator Harris asked if there had been any collaboration with professors and researchers on nematodes. **Dean Parrella** replied that there was currently a project in Moscow, Idaho that is part of a USDA federal project that spanned several other states and universities.

Chairman Rice asked if there were any specific instances where staff has been lost due to the quality of facilities and equipment. **Dean Parrella** replied while they do their best not to lose staff to other institutions there are varying reasons beyond their control as to why staff leave. However, having almost lost a grant at the national level due to the college's apparent lack of proper facilities, he does feel that the lack of modern facilities and inability to keep pace with the changes in research and information technology is definite issue.

PRESENTATION: Agricultural Research Return on Investment. Dr. Cathy Roheim, Senior Associate Dean and Director of Extension, CALS, **Dr. Roheim** mentioned that when UI requested their budget from JFAC last year, they were asked about the return on investment for the Research and Extension Centers. In response, they hired an outside source to get an impartial view. They hired a company in Moscow, Idaho called Economic Modeling Specialists International (EMSI), to conduct an economic impact analysis of the Idaho Agricultural Experimental Station. Since there are nine Research and Extension Centers and a broad range of information to study, they narrowed the study to three of their largest centers: 1.) Parma Research and Extension Center in Canyon County; 2.) Aberdeen Research and Extension Center in Bingham County; and 3.) Kimberly Research and Extension Center in Twin Falls County. They focused on the spending impacts of research activities and a few commodity-specific impacts.

Potatoes, wheat, barley, hops, and sugarbeets are some of the commodities that are studied at each of these centers; they are also crops that play critical roles in Idaho's agricultural economy. The research done at the Centers helps keep these crops healthy and productive. They study pest and disease identification and control, irrigation efficiency, new crop varieties, and improving storage technology.

The results of the study showed that in fiscal year (FY) 2016-2017, research spending on the three Centers was approximately \$8.1 million a year. There is a return of \$3.8 million a year in the form of grants and other outside sources as the research itself generates additional funding in the form of grants and other outside sources. The research also generates a sales impact that shows for every research dollar spent, \$1.41 in sales are created in Idaho.

Dr. Roheim added that it is not just monetary value that is returned, it is intellectual as well. For example, gaining information on how to be more efficient in applying water for irrigation purposes helps lower water usage costs. Improving varieties of wheat, barley, and potatoes leads to more pest-resistant varieties that require less fertilizer and/or pesticide applications. Since it is hard to attribute a monetary value to intellectual property, she emphasized that the numbers in the study show that the Research and Extension Centers are reducing the cost to the producers and, in some cases, increasing the return to the producer. The contributions that the Research and Extension Centers provide to the economy, in terms of improved quality of life, provide an economic impact beyond that which can be fully measured.

Chairman Rice pointed out page 4 details the affect of these returns on Idaho's economy. (see Attachment 1).

PRESENTATION: University of Idaho, Role of Extension with K-12 Education. **Dr. Barbara Petty**, Associate Dean and Director of Extension, CALS, **Dr. Petty** started her presentation by sharing a brief video highlighting the role of UI Extension in Idaho. Some of the services they offer the State of Idaho include strategies for living a healthy life style, guiding children to live responsibly through the 4-H programs, and helping farmers and ranchers grow food while preserving resources. She discussed how UI partners with K-12 school systems to help educate the youth of Idaho. This is done through a variety of programs and program delivery methods. There are school-based enrichment programs and out-of-school programs offered through the 21st Century Learning Centers and instruction offered for the fifth day, for rural areas that only have four-day school weeks. Often acting as a guest speaker, they visit schools and speak on subjects such as plant sciences, horticulture, gardening, food preparation, and preservation.

Dr. Petty highlighted two of their programs: 1) The 4-H youth mentoring program, and 2) Robotics. The 4-H program has ten sites across the State of Idaho. A study in 2014 showed graduates of 4-H had a go-on rate of 62.5 percent compared to Idaho's average of 42 percent. The Robotics program started in 2006 and now has 288 teams statewide. **Dr. Petty** noted that UI is the official sponsor of the FIRST program in Idaho. FIRST is an acronym for "For Inspiration and Recognition of Science and Technology." The goals of the Robotics program are to create innovative solutions to real-world problems. The program helps youth learn skills for the future, such as teamwork and creativity.

Dr. Petty concluded her presentation with a discussion of the Extension's future needs. They are looking to develop curriculum both in STEM education and in precision agriculture by focusing on science-based education centers, like the EUREKA Palouse Tinkering and Training Center. She stated that, to reach their goals, they would need additional faculty and staff to expand their reach throughout the Centers and an ability to keep up with changing technology.

Senator Patrick asked about the go-on rate of the FFA program. **Dr. Petty** replied that the particular study was only of the 4-H program and she was unaware of the FFA rate.

PRESENTATION: Economics of Idaho Agriculture. Dr. Garth Taylor, Associate Professor and Extension Specialist, CALS, **Dr. Taylor** highlighted the latest statistics of the second quarter gross domestic product (GDP) in the United States for 2017. He noted that Midwestern states, particularly Nebraska, South Dakota, and Iowa, which are ahead of Idaho as the largest agricultural states in the nation, were in an agricultural-driven recession. Idaho is the fourth largest agricultural state. After two down years, Idaho is finally up five percent in cash receipts, just over 60 percent of these receipts are attributed to cattle, calves, and milk. He noted that Idaho is driven by livestock. This change happened somewhere in the early part of the century. These cash receipts also incorporate waste that is processed into feed for livestock.

While Idaho agriculture is driven by livestock, the biggest growth rate in cash receipts is in the dairy industry. To illustrate, he graphed the numbers beginning on a scale of 100; the graph analyzed the time frame from 1997 to 2017 (see Attachment 1). His data compared Idaho with the United States. In real Idaho dairy cash receipts, Idaho is 58 percent above where it was in 1997, compared to the United States at 22 percent. Farm income is up 15 percent after three down years. Total revenues are up five percent. Expenses are almost level. Idaho real net farm income has grown 100 percent more than the United States.

Dr. Taylor went on to discuss GDP. GDP is the broadest measure of economic activity in the State. Idaho total GDP is growing 172 percent over what it was in 1997. Farm GDP (not processors) is 159 percent above what it was in 1997. He said farmers have grown 87 percent more than the State's economy, whereas food processors have only grown 20 percent over what they were in 1997. The biggest growth was in production agriculture.

Dr. Taylor concluded his presentation with a look at 2018. The weaker dollar will help make exports more competitive. Ethanol demand is slightly increasing. There are record grain stocks and a huge grain production. Interest rates are low, but rising. Milk prices will not start recovering until the second half of 2018. Hay and wheat, like grain, have large stocks. Potatoes had a good year in 2017; prices for potatoes in the first part of 2018 will likely be good, but may not do as well later in the year due to the tendency to over-plant after a good year. The sugarbeet revenues are dependent upon yields.

Chairman Rice asked for clarification on the slide titled 2018 Outlook USDA breakeven on milk. **Dr. Taylor** replied Idaho's break-even on milk is \$16; this dollar amount is average. Idaho is still the most competitive state in the nation in milk prices. California's break-even is \$24, and Washington's is \$29. He said the difference was due to the federal milk pools and the cost of production.

Chairman Rice asked what causes some of the differences in break-even dollars. Is it due to the regulatory atmosphere and taxation in other states. **Dr. Taylor** replied yes to both and the third factor that contributes is access to fluid milk markets along with federal milk pools that sell into those markets.

ADJOURNED: There being no further business, **Chairman Rice** adjourned the meeting at 9:04 a.m.

Senator Rice
Chair

Carol Deis
Secretary

Diane James
Secretary