



Legislative Fiscal Bureau

One East Main, Suite 301 • Madison, WI 53703 • (608) 266-3847 • Fax: (608) 267-6873
Email: fiscal.bureau@legis.wisconsin.gov • Website: <http://legis.wisconsin.gov/lfb>

October 2, 2019

TO: Members
Joint Committee on Finance

FROM: Bob Lang, Director

SUBJECT: University of Wisconsin System: Section 13.10 Request for Release of Funding for Dairy Innovation Hub -- Agenda Item II

REQUEST

On August 21, 2019, the UW System submitted a request under s. 13.10 of the statutes for release of \$1,000,000 GPR in 2019-20 and \$7,800,000 GPR in 2020-21 for the UW Dairy Innovation Hub.

BACKGROUND

Under 2019 Act 9, \$1,000,000 GPR in 2019-20 and \$7,800,000 GPR in 2020-21 is provided in the Joint Committee on Finance supplemental appropriation for release to the UW System upon request and approval by the Committee for a UW System Dairy Initiative (Innovation Hub). On August 1, 2019, the Board of Regents approved the UW System proposal for use of Dairy Initiative funding included in the 2019-21 biennial budget. The proposal to the Regents was submitted by the Deans of the colleges of agriculture at UW-Madison, UW-Platteville, and UW-River Falls, and forms the basis of the request to the Committee.

In June, 2018, the Department of Agriculture, Trade, and Consumer Protection (DATCP) and the UW System created the Wisconsin Dairy Task Force 2.0 to study the Wisconsin dairy industry and make recommendations regarding the profitability and viability of the industry. The task force included 31 members: 14 members representing dairy farms; seven members representing milk processors and marketers; and 10 members representing allied organizations such as lending institutions and input suppliers. The task force also included resource staff from UW System and DATCP as well as eight ex officio members from the Legislature, the Governor's office, the UW and technical college systems, and DATCP. The task force adjourned on June 21, 2019. Their final report placed the Dairy Innovation Hub at the top of the list of recommendations. The UW-System's proposal notes that the proposal is based on the Dairy Innovation Hub concept endorsed by the Dairy

Task Force 2.0 by a vote of 27-1, and Senate Bill 186, which passed the Senate Committee on Agriculture, Revenue and Financial Institutions by a vote of 9-0 on May 10, 2019. A companion bill, Assembly Bill 207, has also been introduced in the Assembly but had not yet been acted upon by the Committee on Agriculture. The bills would appropriate \$7.9 million GPR annually and would create a Dairy Innovation Hub housed at UW-Madison, UW-Platteville, and UW-River Falls that would grow capacity and expertise to accomplish the following four objectives: (1) ensure animal health and welfare; (2) enrich human health and nutrition; (3) steward land and water resources; and (4) grow farm businesses and communities.

ANALYSIS

Under the request, the funding provided under Act 9 would be allocated in accordance with the breakdown of funding under SB 186/AB 207: 52 percent to UW-Madison, 24 percent to UW-Platteville, and 24 percent to UW-River Falls. UW System staff indicate this breakdown reflects the variation in size between the three universities as well as the difference in research capacity of UW-Madison versus the comprehensive institutions. Funds would be utilized for faculty positions, postdoctoral fellows, research farms, labs, and equipment at the three campuses. UW-Platteville and UW-River Falls would direct a portion of the funds to support research fellowships for existing faculty and UW-Madison would use a portion of funds for graduate student research assistantships. The \$7.8 million in 2020-21 would be included in the UW-System's 2021-23 base budget as ongoing funding. The proposal notes that ongoing funding will enable long-term investments, create a stable infrastructure, and attract staff to support innovative dairy research and education, as well as short-term investments, which would provide flexibility to address emergent issues within the four designated focus areas. Funds provided in the first year would be utilized for short-term investments focused on yielding quick returns to the industry as well as planning for long-term investments to be implemented beginning in the second year.

The Hub would be overseen by the deans of agricultural colleges at the three campuses. In addition, an advisory committee made up of faculty from the three campuses, industry representatives, and a representative from DATCP would advise the deans, review Hub progress, and assist a faculty director in preparing annual reports. Consistent with SB 186/AB 207, the Hub would provide an annual report to the Board of Regents which includes: (a) identification of all positions created and, for each position, whether the position has been filled or remains open as of reporting time; and (b) description of the major accomplishments of the Dairy Innovation Hub, both since its inception and during the immediately preceding year.

According to the request, the hiring process would be expected to take four years to complete. While this process is underway, the Hub could utilize surplus staffing funds for short term or one-time needs. For example, one-time expenditures could include equipment for the remodeled dairy facilities at Babcock Hall at UW-Madison, Pioneer Farm facilities and research labs affiliated with UW-Platteville, and Mann Valley Farm facilities and teaching and research labs at UW-River Falls. The following table shows UW-System's estimated breakdown of how the \$1,000,000 in 2019-20 and the \$7,800,000 annually thereafter would be utilized.

Dairy Innovation Hub Funding Breakdown

	<u>2019-20</u>	<u>Annually Beginning in 2020-21</u>
UW Madison		
14-16 Faculty Members	\$0	\$2,100,200
14-24 Research Trainees (Graduate Students/Postdoctoral Fellows)	0	1,029,300
6 Postdoctoral Research Fellows (partial year)	262,000	
Research Capacity-Building Staff	118,000	176,500
Research Farms, Labs, and Equipment	100,000	650,000
Dairy Innovation Summit	20,000	20,000
Dairy Task Force 2.0 Recommendations	20,000	
Advanced Dairy Management Academy	<u>0</u>	<u>80,000</u>
Subtotal	\$520,000	\$4,056,000
UW Platteville		
4-5 Faculty Members	\$0	\$650,000
4-6 Research Fellowships - Existing Faculty	0	150,000
2 Postdoctoral Teaching Fellows	0	170,000
Research Capacity Building Staff	0	250,000
Research Farms, Labs, and Equipment	230,000	640,000
Dairy Innovation Summit	<u>10,000</u>	<u>12,000</u>
Subtotal	\$240,000	\$1,872,000
UW-River Falls		
5 Faculty Members	\$0	\$650,000
5-10 Research Fellowships - Existing Faculty	0	250,000
2 Postdoctoral Teaching Fellows	0	170,000
Research Capacity Building Staff	125,000	250,000
Research Farms, Labs, and Equipment	105,000	540,000
Dairy Innovation Summit	<u>10,000</u>	<u>12,000</u>
Subtotal	\$240,000	\$1,872,000
Total	\$1,000,000	\$7,800,000

As shown in the table, UW-Madison plans to provide funding for 14-16 faculty members who would offer research leadership in each of the four areas of focus: land and water resources, human health and nutrition, animal health and welfare, and farm business and communities. Attachment 1 includes an excerpt from the Dairy Task Force 2.0 Recommendations which provides examples of research priorities identified by the task force in each area. For example, under the focus area of "Steward Land and Water Resources" the task force identified "reduce on-farm water use", and "optimize feed efficiency and use of land resources" as two of six areas for research focus.

At UW-Madison, a faculty director and an administrative coordinator position would provide a single point of contact to the industry and others hoping to collaborate with the Hub. In addition, the proposal notes that flexible allocations of graduate students and postdoctoral fellows would allow UW-Madison researchers to recruit and train staff to support research needs. Graduate students would collect data in the field and provide other hands-on work over an average of five years while

earning their advanced degrees and supporting the Hub's mission of connecting the research community and dairy industry. Postdoctoral research fellows would bring advanced research experience, with two to three-year appointments, and would complete analyses in a timely manner for public release. According to the proposal, the ongoing combined total of research trainees (graduate students and postdoctoral fellows) would range from 14-24 spread across the four focus areas in a five-year time period based on the topics of greatest interest. This would allow for flexibility to respond to changing conditions in the dairy industry.

The proposal also includes investment in research farms, labs, and equipment to ensure researchers have access to equivalent tools as modern producers and processors. These funds would be allocated on an annual basis to the projects that demonstrate the greatest need and utility among the four focus areas. In addition, the proposal refers to the Advanced Dairy Management Academy which, according to UW-System staff, is the label for the coordination and expansion of instructional efforts in best-dairy practices. The Academy would allow the three campuses to better collaborate on their curriculum and course offerings for undergraduate students. The effort would also support collaboration among the three UW campuses, the Wisconsin Technical College System and other entities to provide the highest quality continuing professional training for farmers, processors, and other dairy industry professionals.

UW-Platteville and UW-River Falls would utilize ongoing funding for four (UW-River Falls), and four to five (UW Platteville) faculty positions, across the four focus areas. Research fellowships for existing faculty would be provided to increase the capacity for research and development. Postdoctoral teaching fellows would recruit individuals to support the college's teaching mission and ensure a pipeline of highly trained students into the industry. The proposal also highlights the flexibility of graduate students to support current faculty in their research and development needs. Finally, investments in facilities and equipment on research farms and campus labs would provide updated technology and better equip those spaces for research and development. Attachment 2 provides the current plan for allocation of faculty across the four research focus areas that was submitted by the Deans of the three colleges of agriculture for consideration by the UW System President and the Board of Regents. UW-System notes that implementation of the Hub will respond to evolving needs, available talent, and balance among the three campuses and annual staffing levels may change as a result.

ALTERNATIVES

A. Funding

1. Approve the request and transfer \$1,000,000 GPR in 2019-20 and \$7,800,000 GPR in 2020-21 held in reserve for this purpose from the Committee's s. 20.865(4)(a) appropriation to the UW System's s. 20.285(1)(a) appropriation. Specify that the \$7,800,000 in 2020-21 is ongoing.
2. Deny the request.

B. Reporting Requirements

1. Approve annual reporting identified under the request to the Board of Regents. This reporting would include: (a) an identification of all positions created and whether each position is filled or vacant; and (b) a description of the major accomplishments of the Dairy Innovation Hub since its creation and in the immediately preceding year.
2. Modify the request to require that the annual reporting also be submitted to the appropriate standing committees of the Legislature having jurisdiction over matters relating to agriculture.
3. Take no action with respect to reporting requirements.

Prepared by: Erin Probst
Attachments

ATTACHMENT 1

Dairy Task Force Research Priorities

Steward Land and Water Resources

- Reduce on-farm water use
- Protect topsoil and improve soil health
- Improve air quality and limit greenhouse gas emissions
- Optimize feed efficiency and use of land resources
- Develop alternative uses for farm waste
- Minimize nutrient losses to lakes and rivers

Ensure Animal Health and Welfare

- Find effective alternatives to antibiotics
- Monitor animal health with sensor technologies
- Improve reproductive rates and replacement policies
- Reduce animal stress and enhance consumer trust
- Minimize risk of disease from animal contact
- Deploy genomic selection for health animals

Enrich Human Health and Nutrition

- Design packaging for convenience and shelf life
- Limit risk of food-borne illnesses
- Create lactose-intolerant and allergy-free alternatives
- Improve the nutritional value of milk and meat
- Minimize pathogen risks in soil and water
- Reduce obesity and preventable health problems

Grow Farm Business and Communities

- Establish agricultural technology start-ups
- Use big data to optimize dairy farm operations
- Market specialty milk and meat products
- Develop a skilled and tech-savvy rural workforce
- Improve financial literacy and return on assets
- Understand global markets and opportunities

ATTACHMENT 2

\$7.8 million/year ongoing for four critical research areas

Steward Land & Water Resources

3-6 Tenure-Track Assistant Professors

UW-Madison CALS

UW-Platteville

UW-River Falls

Research Fellowships for Existing Faculty

(1-2) UW-Platteville

(2-4) UW-River Falls

1 Postdoctoral Teaching Fellow

UW-River Falls

3-6 Research Trainees (Grad Students/Postdocs)

UW-Madison

Advanced Dairy Management Academy

Research Capacity-Building Staff

UW-Madison

UW-Platteville

UW-River Falls

Research Farms, Labs, & Equipment

UW-Madison

UW-Platteville

UW-River Falls

Enrich Human Health & Nutrition

3-7 Tenure-Track Assistant Professors

UW-Madison CALS

UW-Platteville

UW-River Falls

Research Fellowships for Existing Faculty

(1-2) UW-Platteville

(2-4) UW-River Falls

1 Postdoctoral Teaching Fellow

UW-Platteville

3-6 Research Trainees (Grad Students/Postdocs)

UW-Madison

Advanced Dairy Management Academy

Research Capacity-Building Staff

UW-Madison

UW-Platteville

UW-River Falls

Research Farms, Labs, & Equipment

UW-Madison

UW-Platteville

UW-River Falls

Ensure Animal Health & Welfare

3-6 Tenure-Track Assistant Professors

UW-Madison CALS

UW-River Falls

Research Fellowships for Existing Faculty

(1-2) UW-Platteville

(2-4) UW-River Falls

1 Postdoctoral Teaching Fellow

UW-Platteville

3-6 Research Trainees (Grad Students/Postdocs)

UW-Madison

Advanced Dairy Management Academy

Research Capacity-Building Staff

UW-Madison

UW-Platteville

UW-River Falls

Research Farms, Labs & Equipment

UW-Madison

UW-Platteville

UW-River Falls

Grow Farm Businesses & Communities

3-6 Tenure-Track Assistant Professors

UW-Madison CALS

UW-Platteville

UW-River Falls

Research Fellowships for Existing Faculty

(1-2) UW-Platteville

(2-4) UW-River Falls

1 Postdoctoral Teaching Fellow

UW-River Falls

3-6 Research Trainees (Grad Students/Postdocs)

UW-Madison

Advanced Dairy Management Academy

Research Capacity-Building Staff

UW-Madison

UW-Platteville

UW-River Falls

Research Farms, Labs & Equipment

UW-Madison

UW-Platteville

UW-River Falls

This represents current plans. Implementation will respond to evolving needs, available talent, and balance among the three campuses.