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Study: Heavy manure use gets mixed results

Capital Press

KIMBERLY, Idaho — Results of a multi-year rotational study suggest growers who apply repeated, heavy rates of dairy manure to their fields stand to significantly boost their soil organic matter, and may even control populations of a harmful nematode.

However, recently publicized data from the study's fourth year also confirmed the highest manure application rate — 48 tons per acre annually — compromised quality in potatoes and sugar beets while leaching nitrates and phosphorus into the water table.

The study analyzing cumulative effects of varying rates of manure application on wheat, barley, potatoes and sugar beets has four more years of funding remaining. USDA's Agricultural Re-



Manure is spread during the 2016 season on trial plots in Kimberly, Idaho. The University of Idaho study of the cumulative effects of manure application is in its fourth year.

search Service in Kimberly will continue the research for University of Idaho Extension soils scientist Amber Moore, who has taken a job with Oregon State University.

"It's been a good study to understand how different

crops behave with manure in soils and also confirming some of those expectations where if we do have over-application, what some of the ramifications are," said Rick Naerebout, of the Idaho Dairymen's Association,

which helped fund the study.

Plots with the heaviest manure application rates experienced a doubling of soil organic matter, as well as reduced spiral nematode populations following wheat.

"What we're seeing in the test plots is organic matter is increasing at a rate greater than planting cover crops or other practices used to increase organic matter in the soil," Naerebout said.

But Moore explained growers of all four crops involved in the study have had reservations about planting in fields with a long history of manure use do to the potential quality impacts. Moore said spuds raised last season in plots with annual applications of 48 tons per acre had a larger size profile but more internal defects. Specific gravity, which measures the dry matter in potatoes and is considered desirable within the industry,

dropped from 1.0791 in spuds raised with fertilizer alone to 1.075 at peak manure rate.

At the highest manure rate, sugar beets grew much bigger, but Moore said they also had more impurities and sugar content dropped from about 18 percent with fertilizer alone to about 15 percent. The crop that yielded the most total sugar per acre was raised on 16 tons of manure applied every other year.

Moore suspects elevated salt levels and the late-season release of nitrogen from manure were factors behind the quality issues.

During the first three years of the study, Moore said nitrogen mineralization — which is the microbial breakdown of organic nitrogen into plant-available nitrate — occurred at about the same rate as in a greenhouse setting. Last summer, however, cooler conditions slowed nitrogen mineralization during the early season, resulting in an initial nitrogen deficiency followed by a late-season flush of the nutrient. Moore cautioned that weather-related variability in nitrogen mineralization could complicate efforts to apply the proper amount of manure to meet crop needs.

Moore said crops were able to effectively utilize nutrients in soil treated with 16 tons of manure per acre every other year, but she recorded significant leaching of nitrates and phosphorus in the 48-ton annual treatment. At the high manure rate, she found 69 parts per million of nitrate at a soil depth of 1 to 2 feet, compared to less than 8 parts per million with fertilizer alone. She also noticed significant phosphorus leaching at the highest application rate last season, which surprised her, given that phosphorus tends

Lawmakers OK memorial that asks for all food to meet same standards

By SEAN ELLIS Capital Press

BOISE — A House Joint Memorial that asks Congress to ensure that foreign food imports are held to the same food safety standards that U.S. farmers and processors must meet has passed the Idaho Legislature.

House Joint Memorial 6 ended up facing more opposition from Idaho farm groups than it did in the legislature, where it easily passed the Senate and House on voice

Its author, Canyon County farmer Sid Freeman, said that while there are regulations in place that require foreign food imports to meet the same standards as domestic producers, no one actually knows to what extent that's happening.

"The percentage of actual inspections of imported food is way too low and it needs to be 100 percent," he said. "That's what the citizens of this country are expecting."

The memorial's statement of purpose says it wants "to ensure that our domestic farmers, ranchers and food processors are able to compete in a fair and level market environment, and the food security measures required by law are equally applied to all food products allowed to be sold in markets in Idaho and nationally.'

While lawmakers saw no problem with the memorial, some farm-related groups were concerned that some of its language was incorrect or misleading.

Specifically, the Idaho Cattle Association had a problem with language about country of origin labeling. The World Trade Organization ruled against the U.S. COOL law in 2015 and Congress repealed it after that ruling.

Freeman said the language in his memorial was not intended to try to get COOL reinstated but rather to show that



Sean Ellis/Capital Press Sid Freeman

U.S. consumers now have no way of knowing where food products are coming from.

Nevertheless, after meeting with members of Food Producers of Idaho, which represents most of the state's main farm groups, he rewrote his original HJM1 and dropped the COOL language.

ICA lobbyist Wyatt Prescott said the cattle group was OK with the rewritten memorial.

But some other groups were concerned that language in the memorial would give consumers the perception that their food isn't safe.

Addressing mose cerns, Freeman included language pointing out that the Food Safety Modernization Act requires all food products, foreign and domestic, to adhere to the same food safety standards.

But the memorial adds, "and yet only 2 percent of all imported food products are actually inspected.'

Some members of the group struggled with that 2 percent reference and the group opted not to oppose or support the memorial.

derstand their concerns."

FPI members mostly agreed with the concept of the memorial but struggled with some of its language that they considered to be inaccurate.

Legislature approves \$300 million for highway projects

By JOHN O'CONNELL Capital Press

NAMPA, Idahos — The Idaho Legislature passed a bill March 28 supported by many farmers and food processors authorizing the state to issue \$300 million in bonds to upgrade major transportation arteries.

Advocates for Senate Bill 1206 — which the Senate approved 19-16 and the House of Representatives ratified by a 51-19 vote — say a top priority for the funding will be a \$150 million project adding two lanes to a 3-mile bottleneck on Interstate 84 through Nampa, from the Franklin to the Karcher exit. The stretch is critical for moving agricultural commodities, especially for Amalgamated Sugar and the J.R. Simplot Co.

"(The bill) is very, very good for agriculture, in my opinion," said Senate Transportation Committee Chairman Bert Brackett, a Republican rancher from Rogerson.

Opponents of the funding, including the Idaho Farm Bureau Federation, succeeded in defeating a previous bill authorizing the bonding, arguing against the state taking on so much debt. The funding would come from Grant Anticipation Revenue Vehicle bonds — also known as



Courtesy of Idaho Transportation Department

Potholes have formed on Interstate 84 between Nampa and Caldwell, Idaho. The state has approved \$14 million to resurface the stretch, which is critical for moving agricultural goods, and lawmakers have approved \$300 million in bonds that could be used to widen the stretch.

GARVEE. The debt would be repaid with federal fuel tax revenue returned to Idaho. The state took out \$900 million in GARVEE bonds for highway projects in 2005 and still has more than \$500 million in debt remaining, Brackett said.

In a letter to senators, Idaho Farm Bureau argued new construction with GARVEE bonds could exacerbate a \$165 million annual road maintenance shortfall, as estimated by a state task force. Farm Bureau also noted fuel tax revenue has been steadily declining in recent years, and it would like to see a more detailed accounting of how GARVEE funds would be spent.

The \$300 million in new GARVEE bonding increases GARVEE debt by 60 percent and will extend payoff dates well beyond 2032," the Farm Bureau letter reads. "We ask if any of us would increase our personal debt by 60 percent."

to bind in soil.

However, members of Food Producers of Idaho, which represents more than 40 state commodity groups, wrote a letter to legislators encouraging them to adequately fund highway projects to help them "move product from farm to market.

Rep. Scott Syme, R-Wilder, said accidents are a daily occurrence on that stretch of

"I bet if I went in my district and said, 'What's the No. 1 issue?' they'd say fix the freeway and fix our roads," Syme said. Rep. Christy Perry, R-Nam-

pa, advocated for spending some of the GARVEE funding to study continuing the I-84 widening by 5 miles, from Nampa to Caldwell. Mark Duffin, with the Ida-

ho Sugar Beet Growers Association, said his organization supports legislative efforts to improve roadways but takes no position on the funding mechanism.

However, Simplot wrote a letter to Brackett supporting GARVEE bonding to widen the entire 8-mile stretch from Nampa to Caldwell.

Five inducted into Eastern Idaho Ag Hall of Fame

By JOHN O'CONNELL

Freeman said while he would have preferred to get FPI's support, "I get and un-

Capital Press AMERICAN FALLS, Idaho — If not for Garn Theobald, Idaho likely wouldn't have a chipping potato industry today.

He was among five industry leaders chosen to be inducted into the 45th class of the Eastern Idaho Agricultural Hall of Fame during a March 24 recognition dinner in Idaho Falls. Albert Wada, with a fresh potato packing operation in Pingree; Bancroft rancher Wilder Hatch; Rexburg rancher Bob Huskinson; and Carmen rancher David McFarland were also

Theobald did the book-

keeping for Clover Club Farms, which raised chipping potatoes on 2,500 acres in American Falls for a large chip manufacturer based in Kaysville, Utah. When Clover Club sold the farm during the 1970s, he and the farm's general manager, Ray DeRoche, seized on an opportunity to fill the niche. In 1977, they incorporated R&G Potato.

"We came up with the idea that Idaho is a potato state, and there is no reason why we can't provide quality potatoes into chip companies all over the U.S.," Theobald said.

In 1991, Theobald bought out DeRoche and brought in his brother, Steve, to be his new partner.

Today, R&G is one of the



John O'Connell/Capital Press Garn Theobald, a founder of R&G Potato in American Falls, was inducted into the Eastern Idaho Agricultural Hall of Fame.

top three suppliers of round white potatoes in North America, and remains the only player in Idaho's chipping industry. The company now supplies 3.5 million hundredweight of chipping spuds annually from its locations in American Falls and New Mexico to buyers including Frito Lay, Inventure Foods, UTZ and other chip buyers. In-N-Out Burger also buys about 300,000 hundredweight of R&G chipping spuds per year for making fresh-cut fries.

The story of Wada Farms began with the forced relocation of Albert Wada's parents from California to Idaho in 1943. An East Idaho seed grower provided the Japanese-Americans with work during World War II, enabling them to avoid being moved to an internment camp.

"They basically had to start over as 100-acre share croppers down in Pingree," said Bryan Wada, Albert's son and current Wada Farms CEO.

Albert Wada was born in Idaho and bought the 400acre family farm when his father, Frank, retired.

Under Albert Wada's leadership, the farm opened a packing facility in 1992 and established Wada Farms Marketing Group. Wada Farms currently employs 300 workers and farms 28,000 acres.

Hatch was recognized for his commitment to natural resource education programs and conservation projects.

Huskinson was described as a pioneer in well irrigation, and McFarland was recognized for his work in sage grouse management and his innovative grazing practices.





