



MI PORK SAMPLER

What is the economic value of your manure?

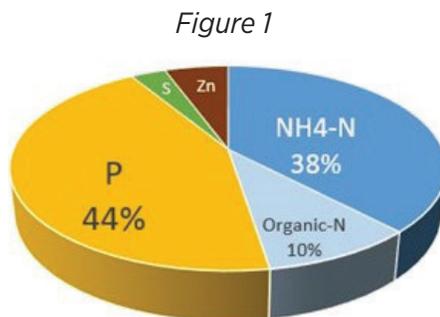
By: Christina Curell, Michigan State University Extension

Manure has been used for centuries as a soil amendment and a fertilizer source. The intangible values such as an increase in organic matter or an increase in water holding capacity is often discussed and acknowledged, but the real question that many farmers want to know, “How much money is my manure worth?” was addressed by Dr. Richard Koelsch from the University of Nebraska-Lincoln in a blog post on the Soil Health Nexus website. His research findings have led him to believe that there are 3 variables that define the economic value of manure.

- Phosphorus (P) value
- Potassium (K) value
- Yield Response

The nutrient replacement value of beef open lot manure is approximately \$14/ton* when surface applied. *This assumes supplemental K is not needed and no yield increase results. Additional assumptions found at the end of this article. Courtesy of Dr. Richard Koelsch

Figure 1: The nutrient replacement value of swine finisher manure is approximately \$37/1,000 gallons* when injected. *This assumes supplemental K is not needed and no yield increase results. Additional assumptions found at the end of this article. Courtesy of Dr. Richard Koelsch



Value of beef open lot manure assuming crop benefits from potassium supplementation and 5%

increase in yield. Estimated manure value is \$28/ton. Courtesy of Dr. Richard Koelsch

Dr. Koelsch’s research has shown that to get the most economical value, farmers need to consider the rate of their manure application. He advises growers to follow these basic manure practices:

Manure should be applied at a rate that does not exceed the crop Nitrogen (N) requirements for a single year. Excess manure N application is likely to leach beyond the root zone and be lost.

Manure applied at rates near the crop’s N requirement typically over applies P and K. However, these nutrients will continue to be available to crops in future years. To gain the manure’s P and K value, target those fields requiring supplemental P and K. In addition, avoid re-applying manure to the same field until soil testing suggests the need for supplemental P and K.

Assessing the economic value of manure begins by targeting fields low in P and K. Similar benefits are observed for other manures as illustrated in Figure 4. To view the full article, visit the Soil Nexus Website blog post.

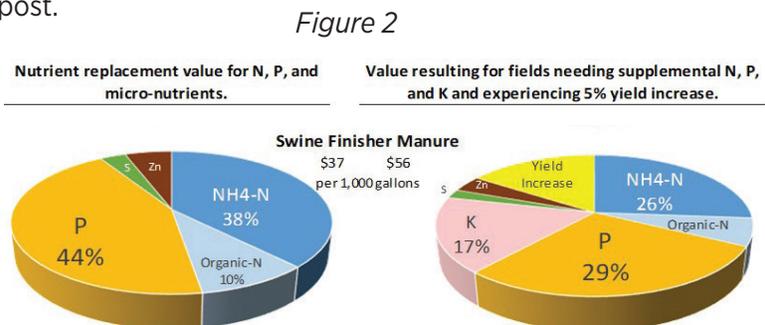


Figure 2: Low and high economic value estimate of different animal manures based upon nutrient replacement value for manure N, P and micro-nutrients

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NEW TRANS-PACIFIC PARTNERSHIP MOVES FORWARD

Mexico recently became the first of 11 countries to ratify the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) – the former Trans-Pacific Partnership – on a 73-24 vote of its Senate. The agreement will go into effect when six of the 11 nations approve it. (In addition to Mexico, the CPTPP consists of Australia, Brunei, Canada, Chile, Japan, Malaysia, New Zealand, Peru, Singapore and Vietnam.) Japan also announced that Toshimitsu Motegi, its economic and fiscal policy minister, will visit Thailand in early May to discuss the agreement, which Thailand hopes to join. Japan anticipates the trip will place pressure on the United States to rejoin the pact. President Trump recently directed U.S. Trade Representative Robert Lighthizer and National Economic Council Director Larry Kudlow to consider rejoining the TPP, but he voiced his preference for a bilateral trade agreement with Japan rather than the multilateral CPTPP. Japan is the U.S. pork industry's No. 1 export market.

PERDUE ALLOWS FMD VIRUS ON U.S. MAINLAND; NPPC CONTINUES PUSH FOR FMD VACCINE BANK

Agriculture Secretary Sonny Perdue authorized non-infectious Foot-and-Mouth Disease (FMD) virus to be moved from USDA's Plum Island Animal Disease Center, which is off the coast of Long Island, N.Y., to the U.S. mainland for vaccine development and study. (U.S. law prohibits live infectious viruses on the mainland.) While the action is positive for U.S. efforts to protect American agriculture from foreign animal diseases, commercial production and availability of a U.S. FMD vaccine will take years, according to NPPC,

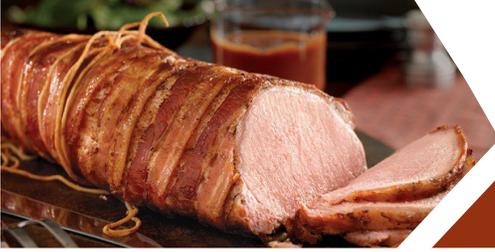
which is continuing to urge congressional lawmakers to include in the 2018 Farm Bill language establishing and funding a robust off-shore, vendor-managed FMD vaccine bank. It's asking for annual funding over the five years of the next Farm Bill of \$150 million for the vaccine bank; \$30 million for the National Animal Health Laboratory Network (NAHLN), a network of disease diagnostic laboratories; and \$70 million in state block grants for disease prevention. The Farm Bill approved recently by the House Agriculture Committee would establish an FMD vaccine bank but only has first-year mandatory funding of \$150 million for the bank, \$70 million in block grants to the states and \$30 million for the NAHLN. For the remaining four years combined, it calls for \$30 million in mandatory funding for state block grants and \$20 million, used at the Secretary of Agriculture's discretion, for the vaccine bank, the NAHLN and the states.

BARBIC CONFIRMED FOR USDA POST

Ken Barbic was confirmed to serve as the U.S. Department of Agriculture's assistant secretary for Congressional Relations by the U.S. Senate. Barbic recently served as senior director for the Western Growers Association, following time as the deputy assistant U.S. Trade Representative for Congressional Affairs. Barbic grew up on a family farm in Bakersfield, Calif. NPPC looks forward to working with USDA leadership, including Barbic, to protect and advance the U.S. pork industry.

WORLD PORK EXPO JUNE 6-8

NPPC's annual World Pork Expo, this year celebrating its 30th anniversary, will be held June 6-8 at the Iowa State fairgrounds in Des Moines. For more information, visit www.worldpork.org.



Pork Checkoff

U.S. Pork Industry Is Focused on Safeguarding Natural Resources

In light of a recent court ruling in North Carolina regarding hog production, the National Pork Board is sharing the strong record the U.S. pork industry has on the environment and sustainability efforts.

“Sustainability on the farm is an ongoing commitment by pig farmers today,” said Terry O’Neel, National Pork Board president and a Nebraska pig farmer. “As an industry, farmers are committed, through ongoing environmental sustainability efforts, to safeguard natural resources for future generations.”

Over the last decade, the U.S. has played a leading role in advancing animal agriculture’s environmental and conservation efforts. Respect for the earth and its natural resources is part of the U.S. agricultural heritage and America’s pork producers are dedicated to preserving that legacy. Long-term efforts have helped pig farmers raise more pork using fewer natural resources than ever before.

A key reason is new technology in place on farms across the country which improve sustainability and air quality, preserve soil quality and reduce land, water and energy use. In a 50-year look-back completed by the University of Arkansas in 2012 – and which is currently being updated with data through 2015 – U.S. pig farmers had reduced land use by 78 percent, reduced water use by 41 percent, and had a carbon footprint that was 35 percent smaller. Preliminary data over just the past five years shows continued progress.

Additionally, pig farms throughout the U.S. carefully manage the manure that is produced, and do so according to the requirements of all environmental permits and regulations. Manure is a valuable nutrient resource for the production of all crops, and is applied to fields in accordance with agronomic needs of the crop and according to state and federal regulations.

“Pig farmers learn from the examples of others and we routinely share best practices,” said O’Neel. “That’s the motivation behind the development in 2008 of our **We Care** platform and its six ethical principles of production.”

We Care, which marks a decade of commitment this year, includes steps to: produce safe food, protect and promote animal well-being, ensure practices to protect public health, safeguard natural resources, provide a safe work environment and contribute to a better quality of life in our communities.

Michigan Student Wins Top 2018 Pork Industry Scholarship

The Pork Checkoff has awarded 21 scholarships to college students around the United States as part of its strategy to develop the pork industry’s future leaders. A National Pork Board committee judged the pool of 70 applicants based on scholastic merit, leadership activities, involvement in the pork production industry and the applicants’ plans for a career in pork production.

“The 2018 scholarship winners are an important part of the pork industry’s future,” said National Pork Board President Terry O’Neel. “These young people are critical to helping us develop the next generation of pig farmers and industry leaders who will be ready to produce safe, wholesome food in a socially responsible way.”

The 21 student recipients hail from 15 states and 14 universities and represent six different majors in swine-related fields.

This year’s top scholarship recipients are Madison Wensley and Amanda Anderson, who will receive a \$5,000 and \$3,500 scholarship, respectively. Wensley, a senior at Michigan State University, is majoring in animal science. She plans to continue her academic career by pursuing a master’s of science degree in swine nutrition at Kansas State University. Ultimately, she would like to provide pig farmers with the tools they need to improve feed management practices. Anderson, a senior at Iowa State University, is majoring in animal science. She plans to pursue a doctorate of veterinary medicine at Iowa State University in the fall. The other award recipients will receive \$2,000 each.

“We are excited that these young people see the opportunities available in today’s pork industry,” O’Neel said.

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and additional value assuming benefit from manure K and crop yield increase of 5%.

Assumptions for graphs: Price of nutrients were assumed to be \$0.35/lb. N, \$0.40/lb. P2O5, \$0.35/lb. K2O, \$0.35/lb. sulfur, \$2.90/lb. zinc. For some figures a yield increase of 5 percent was assumed and allocated to a manure application rate designed to meet 75

percent of N requirement of a 200 bushel/acre corn crop (e.g. 19 ton of feedlot manure/acre). Corn was valued at \$3.50/bushel.

This article was published by Michigan State University Extension. For more information, visit <http://www.msue.msu.edu>.

Opportunities with the Institute of Agriculture Technology

The Institute of Agricultural Technology (IAT) at Michigan State University offers accessible, applied and affordable educational programs to students on campus, and across the state in partnership with several Michigan community colleges. The IAT is still accepting fall 2018 applications for admission for programs in East Lansing and at all of the community college partner locations. The IAT has its own online application for admission found at www.iat.msu.edu/apply. IAT students planning to enroll at one of the off-campus community college partners must also apply for admission to the community college. If you know of a student interested in a campus visit to East Lansing or one of the 10 community college partners to learn about programs and other related IAT student opportunities, have them or their families contact Nathan Westfall to assist with setting up those meetings. He can be reached at 517-884-7334 or westfa25@msu.edu.