Metropolitan Water Reclamation District *of* Greater Chicago

Press Release

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Field Day exposes Illinois farmers to MWRD nutrient management strategies in Fulton County

MWRD Commissioners Josina Morita and Frank Avila and staff ride along haystacks during the annual Field Day in Fulton County to highlight current case studies in farming to reduce nutrient runoff to protect water quality.

MWRD Principal Environmental Scientist Guanglong Tian discusses cover crop inter-seeding during a presentation at the MWRD's annual Field Day in Fulton County. Cover crop inter-seeding better captures soil and prevents surface runoff, reducing nitrogen and phosphorus loss in the offseason and saving farmers future fertilizer costs.

Just as it flows across streets and sidewalks and funnels through pipes and sewers, water can also run off farm fields into area waterways, eventually moving downstream with whatever fertilizers and nutrients that come with it. To address that flow and ensure that future water bodies are protected from excessive nutrients that impair water quality, the MWRD studies best practices to manage nutrient runoff at its downstate test site in Cuba, IL.

Many of those studies were recently displayed to central Illinois Farmers when the MWRD hosted its annual Field Day with the Illinois Farm Bureau (IFB), Fulton County Farm Bureau, Illinois Nutrient Research & Education Council (NREC), Prairie Research Institute and University of Illinois (U of I) Extension.

"We thank our partners with the Illinois Farm Bureau, scientists and engineers on staff and fellow researchers who each year develop innovative work that is applied across Illinois farms to reduce nutrient loss to protect our waterways and help our farmers," said MWRD Chairman of Finance Frank Avila. "Through these partnerships we can build solutions to reduce nutrients in our local waterways and protect water bodies as far as the Gulf of Mexico."

Illinois released the Statewide Nutrient Loss Reduction Strategy (NLRS) in 2015 to address the issue of local water quality and gulf hypoxia in 2015. The Strategy calls for partners to leverage existing programs through collaboration, research, private sector innovation, academia, non-profits, publicly owned treatment works, agriculture, and state and local government to achieve the ultimate goal of a 45 percent reduction of nutrients leaving the state. These synergies are an efficient path toward meeting these ambitious goals, officials said.

"Illinois Farm Bureau has been working with MWRD to implement the NLRS in various ways since 2013," said Illinois Farm Bureau Director of Natural and Environmental Resources Lauren Lurkins. "That collaboration includes farmers visiting the Stickney Water Reclamation Plant, collaborations on research and field days in Fulton County, and a true partnership between the urban and rural communities in Illinois as we work together to improve water quality. It is important that we continue to work together to communicate to both of our audiences that efforts are being made both on Illinois farms and at Illinois wastewater treatment plants."

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Field Day exposes Illinois farmers to MWRD nutrient management, *cont.*

The MWRD restored strip-mined land in Cuba, IL for the Prairie Site Plan, converting several former coal mines to fertile farmland and healthy fresh water lakes that are now home to thriving aquatic life and an ideal location to test best management practices to study nutrient reduction strategies.

From L - R: Environmental Soil Scientist Olawale Oladeji, Chairman of Finance Frank Avila, Environmental Monitoring and Research Manager Albert Cox and Principal Environmental Scientist Guanglong Tian welcomed visitors to Field Day to view MWRD research into managing nutrients.

As part of the annual Field Day, agricultural professionals teamed up with water experts and soil scientists from the MWRD to offer different techniques that can increase crop yields while reducing nutrient runoff that can plague downstream water quality. Crowds toured the grounds to view several demonstrations that included cover crop inter-seeding, denitrifying bioreactor improvements, drainage water management and multipurpose riparian grass buffers.

These practices will not only reduce the amount of nutrients required for farming but also help protect water quality thanks to the recovery of phosphorus and nitrogen. Recovering these nutrients is critical because when entering waterways nutrient runoff can lead to hypoxic conditions and algal blooms that threaten aquatic life. After heavy rainfalls this spring, the practice sites demonstrate increasing benefits because with more water leaching though soil there is a higher chance of nutrients running off in the drainage water and more water and nutrients that can be captured from the fields.

"Through our collaboration in Fulton County we can achieve statewide solutions to the nutrient issue, rather than a targeted approach aimed solely at point sources," said MWRD Commissioner Josina Morita. "The MWRD proactively works each day at our treatment plants to reduce the flow of nutrients in our water and recover these resources for reuse opportunities, but our mission also extends to Fulton County where we can better work with the agricultural sector to develop nutrient reduction practices in non-point source areas.

MWRD Commissioner Josina Morita stands before the rising corn grown on MWRD property in Fulton County. The farm fields at the Prairie Plan site grow corn, soybeans, and about 400 acres of hay annually. There is also 1,300 acres of pasture.

There are no boundaries to promoting water quality."

Formerly known as the Prairie Plan site, the MWRD originally acquired the Fulton County land in 1970 to restore strip-mined land and convert it from a brownfield to fertile farmland. The MWRD created berms throughout the agricultural fields to better collect runoff and capture nutrients to preserve area water quality. The restoration project received numerous awards. Today the land is farmed and used as a test site to study different initiatives pertaining to nutrient loss reduction, soil science and water conservation.