

Bayer – USA

Cross-sector action to protect the Upper Mississippi River Basin

Agricultural lands occupy almost half of the world's land surface and a further expansion is projected to feed a global population expected to reach 9 billion by 2050. The social and economic contribution that agriculture makes at both the macro and micro levels is also well documented: agriculture contributes 30% of the GDP in many low-income countries and employs more than 2 billion people globally. Over 75% of people living in poverty depend on agriculture for their livelihoods. Agri-business firms—local, national and international—play major roles in agricultural production and services.

As a significant land user, agri-business also has a critical role to play in holistic sustainable land management that protects and maintains essential ecosystem services and builds rural community resilience. GAA and EcoAgriculture Partners are working together to identify and learn from a selection of innovative regenerative and restorative landscape partnerships in which agri-business companies are actively involved. These case studies will support us in our shared ambition to better understand the agri-business perspective—their business rationale for landscape partnerships, institutional models, business and landscape benefits, and how to bring success to scale. We welcome your input and feedback.

Case studies are available at globalagribusinessalliance.com

Independent authors



Side-by-side practice to determine the advantages of cover cropping practices: on the left, cereal rye planted using no-till, on the right, conventional tilling methods

Rationale for taking a landscape approach

The Gulf of Mexico dead zone, at the mouth of the Mississippi River, is one of the largest dead zones in the world, covering approximately 5,500 square miles*. As a major source for the seafood industry, this dead zone creates significant risks for the regional fishing industry and the economies of the states with coastlines adjacent to the dead zone. In 2014, Monsanto, which was acquired by Bayer in 2018 and is now part of the company's Crop Science Division, began working with Cargill, Environmental Defense Fund, General Mills, Kellogg Company, Land O'Lakes, McDonald's, PepsiCo, The Nature Conservancy, Unilever, Walmart, and World Wildlife Fund, to build a broad partnership in Illinois, Iowa, and Nebraska – some of the major farming states in the United States whose watersheds drain into the Mississippi River Basin.

Bayer's Crop Science division has businesses in high-value seeds, crop protection and non-agricultural pest control. Feeding a growing population is an onerous task and one that can only be achieved through collaborative efforts; Bayer is committed to being part of this solution and in doing so, strengthening the social license to operate for the agri-business community.

The shared ambition for this 'Midwest Row Crop Collaborative' (MRCC) is to address nutrient overload in the Mississippi River and enhance soil health and food security in its surrounding catchment. Meeting corporate-level emission reduction targets through improved soil health and agricultural practices was one of the key drivers in bringing together the private sector partners.

*National Oceanic and Atmospheric Administration, the 33-year average size.

Bayer's role in the landscape partnership

The geographical scale and systemic nature of this challenge has brought together a large and diverse coalition of key actors in the landscape. As a co-founder of the MRCC, Monsanto was part of the partnership's Board from the outset and Bayer plans to continue the company's involvement. Each partner makes an annual commitment – and financial contribution – to the MRCC. Bayer's established network with farmers provides, valuable direct and trusted access to the end-user as well as technical expertise and familiarity with the region's farming practices and the long-term challenges associated with agriculture. Technical partners contribute valuable science that strengthens the impact of the initiative.

Actions and investments for landscape sustainability

During this first phase of collaborative action, the MRCC has been working through the existing Soil Health Partnership, a farmer-led initiative administered by the National Corn Growers Association, to undertake farm-level research at over 100 farms across 12 states. This research seeks to understand and measure a suite of projected impacts to yields and emission reductions associated with the uptake of sustainable agricultural practices, such as cover cropping, nutrient management, and conservation tillage that aim to improve soil health and reduce nutrient overload. Bayer agronomists are supporting the process with technical support to participating farmers. Moving forward, the MRCC aims to focus on integrating a small set of key 'levers'. These include access to conservation finance, de-risking practice adoption (insurance to cover initial yield loss), engaging retailers to highlight and support adoption of sustainable farming practices, and innovation to stimulate consumer-demand.

Benefits and successes

Farmers are changing their practices through, for example, incorporating cover crops and no-till into their day-to-day activities. As part of the partnership with Soil Health Partnership, a total of 140 farms representing nearly 6,000 acres are participating in research and other sustainable farming practices to build a proof of concept. Awareness across the farming community, with over 400 million social media impressions, has also increased through field days and workshops spanning almost 35 million acres. The program continues to grow with additional research partner sites, an expanding geography, and new partnerships with wheat and livestock organisations.

Lessons learned

A regionally focused, farmer-driven dialogue is crucial when it comes to developing systems-based solutions. The farmer-focus enables farmer knowledge and experience to shape meaningful on-farm research trials as well as generating a deep understanding of real-life hurdles to adopting sustainable agricultural practices. Together with the integration of a strong science base provided by the coalition's independent and expert partners, this is a key strength of the MRCC approach. Recognising that a step-wise process generating incremental, positive changes and impacts is key to staying focused on the end-game and to meeting systemic and longer-term goals.



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Bayer

For more details please contact Sean Ariens, Ag Environmental Business Development Lead, Bayer U.S. – Crop Science Division at sean.ariens@bayer.com

The Global Agri-business Alliance

The only multi-commodity, multi-geography, CEO-led platform for supply-side sector engagement and collective action: growers, processor, traders, providers of finance and inputs. Member companies have come together to strengthen their contribution to building sustainable landscapes and livelihoods. A time-bound initiative, GAA has its sights set firmly on 2030 and on making an additional contribution to the SDGs. The GAA does this by providing a platform for engagement and collaborative action that

- 1) scales best practice through peer learning
- 2) contributes to thought-leadership and
- 3) informs and influences emerging policies.

Contact

Global Agri-business Alliance,
World Business Council for Sustainable
Development
Maison de la Paix
Chemin Eugaène-Rigot
1202 Genève
Switzerland

+41 22 839 31 00
info@globalagribusinessalliance.com
globalagribusinessalliance.com