



## NEWS RELEASE

### **Comprehensive Research Documents the Value of Neonics to North American Agriculture and the U.S. Economy**

*Final report of comprehensive multi-year study summarizes and outlines the critical importance of neonicotinoids to agriculture, farm communities and environmental sustainability*

MADISON, Wis. (February 25, 2015) – In the final report of a comprehensive study on the socio-economic benefits of neonicotinoid insecticides in North America, a group of independent economists and scientists provide compelling evidence that these products are vital to agriculture and to our society. The report confirms that neonicotinoids significantly increase crop yield and bring billions of dollars to the economy, benefiting farmers and entire communities. Losing these products is likely to have serious unintended consequences that go well beyond farming.

This report is the culmination of a multi-year research project that evaluated more than 1,500 university field trials on eight major crops and interviewed more than 1,700 farmers and agricultural professionals across North America. The research was conducted by the independent consulting firm, AgInfomatics, LLC, and the University of Wisconsin-Madison and commissioned by an agricultural coalition committed to sound scientific discourse on neonicotinoid insecticides. The research provides a definitive response to the question, “What would happen if neonicotinoids were no longer available?”

#### **Growing Food and Fiber Matters: Neonics are Critically Important to Agriculture**

Neonicotinoids have become the most widely-used class of insecticides in North American agriculture, for good reason. The research finds these products are used by farmers to manage some of their most difficult pest problems and critical to the proven, scientifically-based method of pest control known as “integrated pest management” (IPM). Interviews with more than 70 farmers and ag experts confirm fears that a loss of neonicotinoids would disrupt successful IPM programs and increase the likelihood of pest resistance and resurgence. The study also found that neonicotinoid seed treatments are the most valued insect management practice in corn, soybean and canola, generating a total farmer value of \$1.4 billion.

A comprehensive analysis of 1,550 field studies conducted over 20 years shows that neonicotinoid insecticides provide average yield increases ranging from 3.6 and 71.3 percent among the eight major crops evaluated across North America. In soybeans, which increased an average of 3.6 percent, the yield benefit of neonicotinoids exceeded \$20 per acre based on current market prices, representing nearly a three-to-one return on grower investment.

## **Protecting Our Environment Matters: Neonics Help Minimize Insecticide and Acreage Use**

If neonicotinoids were no longer available, farmers would be forced to rely on older chemicals – mainly organophosphates and pyrethroids – and need to dramatically increase the total amount of insecticides used. In evaluating U.S. commodity crops, researchers found that each pound of neonicotinoid would have to be replaced with nearly five pounds of older chemicals, increasing their application rate per acre by 375 percent. Moreover, as U.S. farmers look to offset losses in yield and quality, the total amount of farmland is predicted to increase between 340,000 and 410,000 acres. Much of this would come from the Conservation Reserve Program, environmentally sensitive land established to preserve water, soil and wildlife.

The report highlights the unintended environmental consequences that would emerge if neonicotinoids were no longer available. These include potential impacts to crop management, beneficial insects and the environment, including:

- Accelerated losses of pollinators and other beneficial insects due to the increased use of older broad-spectrum foliar sprays.
- Increased acreage devoted to farmland to compensate for crop losses, leading to less available forage for pollinators or refuge for other beneficial insects.
- Decline in the use of cover crops due to increased tillage to disrupt soil pests now controlled by seed treatments, resulting in greater soil erosion, run-off and loss of habitat.
- Increased dependence on older chemicals, which are not conducive to IPM, resistance development and invasive species management programs.

## **Supporting Our Farmers: Neonics Reduce Costs to Farmers**

That neonicotinoids are cost-effective would seem obvious, given their popularity among farmers, but few estimates were available prior to this research. The study estimates the economic impact of replacing neonicotinoids with alternative products would cost farmers nearly \$850 million per year for the major U.S. commodity crops examined. Factors contributing to this increase include the higher costs of alternative products to replace lower-cost seed treatments, higher application costs associated with equipment changes resulting from more frequent spraying, increased scouting costs, and increased seeding rates and/or replanting costs to offset pest damage to seedlings.

## **Sustaining Our Communities Matters: Neonics Bring Value to Consumers and Communities**

The impact of losing neonicotinoids is not limited to the farm. The loss of these products would be felt by farmers initially (due to yield and quality losses), but over time most growers would adjust to the changing pest management environment, with the agricultural economy moving to higher prices and increased acreage. A new supply and demand equilibrium would be established eventually and the higher costs for these commodities would be paid by the consumer in the form of higher food prices. The study estimated that the aggregate economic impact would cost North American consumers in excess of \$4 billion annually.

The research included two in-depth case studies, exemplifying the significance of neonicotinoids to individual farmers and to the local communities that depend on agriculture.

- A Florida citrus grower relies on neonicotinoids as his primary defense against citrus greening, an incurable disease carried by an invasive insect pest. This disease is threatening the U.S. citrus industry and, if left unchecked, could result in a loss of 76,000 jobs and a nearly \$9 billion economic impact in Florida alone.
- A cotton grower in the Mid-South uses neonicotinoids for early season pest control to help preserve beneficial insects and reduce the need for insecticide sprays. Losing these products would disrupt the local economy, in addition to his successful IPM program. That's because cotton production supports local jobs and the economy beyond farming that would be crippled if growers had to switch to other crops.

### Report References

#### ***Executive Summary: The Value of Neonicotinoid Insecticides in North American Agriculture***

*This is the final report in a series recently undertaken to provide a comprehensive evaluation of the economic and societal benefits of neonicotinoid insecticides in North America. The research was conducted by AgInfomatics, a consulting firm of independent agricultural economists and scientists, and jointly commissioned and sponsored by Bayer CropScience, Syngenta and Valent U.S.A. For questions or information concerning this research and reports, please contact the Porter Novelli address identified below.*

All reports will be published online at: [www.GrowingMatters.org](http://www.GrowingMatters.org).

### **About Growing Matters**

Growing Matters is a coalition of organizations and individuals committed to scientific discourse on the stewardship, benefits and alternatives of neonicotinoid insecticides in North America. [Bayer CropScience](#), [Syngenta](#) and [Valent U.S.A. Corporation](#) are leading this coalition with support from Mitsui Chemicals Agro, Inc.

Agriculture and horticulture are key to nourishing families and communities. Feeding a growing population, enhancing the beauty of our surroundings, and sustaining a commitment to environmental protection are fundamental needs that matter. Crop protection products, both natural and synthetic, are important tools that protect plants from tough and invasive pests that can devastate crops and urban landscapes.

Go to [www.GrowingMatters.org](http://www.GrowingMatters.org) for the latest information, reports, videos and infographics on the benefits of neonicotinoid insecticides or to show your support.