AVENA FYI

BUILDING BIODIVERSITY WITH 'POLLINATOR STRIPS'

As century-old prairie farms are bought up, traditional farmyards with their shelter belts and trees are being torn down and the surrounding bush cleared. These traditional farmscapes, with their wealth of biodiversity, once provided the ideal setting for bees and beekeepers.

The loss of biodiversity has had other impacts as well, including reduced seed set, loss of soil quality, and increased pest pressure.

Prairie farmers are beginning to experiment with a practice known as 'pollinator strips'. This technique not only enhances biodiversity, but it can also act as a 'buffer zone' to protect water bodies and increase soil moisture – an important consideration as North American summers become hotter and drier.

WHAT IS A POLLINATOR STRIP?

Pollinator strips are purposely-designed areas of vegetation located on the marginal land or wetlands of a farm. Their function is to provide habitats for pollinators and to restore local biodiversity.

A flowering pollinator strip adjacent to a field near Treherne, Manitoba. Photo: Farnaz Kordbacheh.

A flowering pollinator strip. Photo: Willmar Farms Ltd.

WHAT IS THE TYPICAL SEED BLEND USED IN A POLLINATOR STRIP?

Plant scientists at the University of Manitoba have developed a pollinator seed blend (the 'TG Pollinator Blend') which contains 11 varieties of plants, including annuals, perennials and biennials (Buckwheat, Sunflower, Balo Brand Phacelia, H.O. Grand Crimson Clover, Imperial Select Alfalfa, Sainfoin, Raskila Meadow Fescue, Laser Brand Persian Clover, Chicory, Alsike Clover, and Red Clover).

Throughout the growing season the flowers attract bees and birds, as well as nourishing beneficial insects. They also assist with pollination and yield in the adjacent crop. Alfalfa and clover have the additional property of extracting nitrogen from the air and 'fixing' it in the soil.

A pollinator seed blend. Photo: Collective Impact Ag.

Keeping roots alive in the soil year-round prevents soil erosion, improves water quality in neighboring waterways, and sequesters carbon.

HOW CAN YOU MEASURE THE IMPACT OF A POLLINATOR STRIP?

A variety of tools are available for measuring and quantifying the benefit of pollinator strips. Metrics typically used include the number (and variety) of insects, the soil carbon content, and the soil's microbiome. Other inputs come from yield analysis and imaging tests.

Insect trapping is carried out in July and August. Meanwhile water infiltration tests, performed spring and mid-summer, are designed to mimic rainfall and to measure how well the soil is absorbing moisture.

LINKING ACROSS THE VALUE CHAIN: *POLLINATOR STRIP IMPACT PROJECTS*

Avena has established two-year Pollinator Strip Impact Projects. These initiatives enable a commercial customer to support a farm in implementing a field-scale pollinator strip. Reports and pictures are provided from pre-seeding to post-harvest, allowing companies to share information with their customers. Farm to Fork in action!

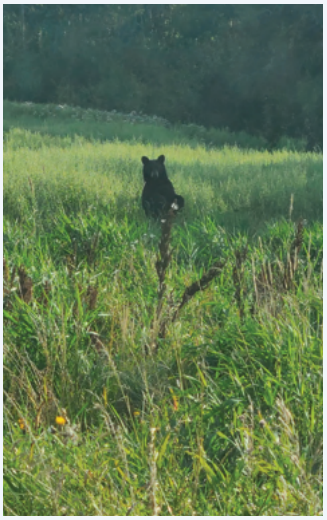
WHERE'S THE BUZZ?

Many pollinator species are threatened by habitat degradation and fragmentation. Pesticides and climate change have also taken their toll.

The 'Bee Tool of North America' (thebeetool.com) is a web-based application that was developed to monitor bee populations across North America. Check out the bees in your area!

BIODIVERSITY BEAR

Louie Kennedy of Alliance Farms in northern Saskatchewan took this picture of a black bear relaxing among the vegetation surrounding his organic oat field.



FURTHER READING

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2. Chapman H, Wilke B. (March 1, 2023). **Prairie strips: A case study on improving farming yields and pollinator habitat by transforming unprofitable farmland into prairie.** Creating an agroecosystem to benefit wildlife, research, and the future of farming. Michigan State University Extension.

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3. **Threats to pollinators and why they need our help.** Pollinator Partnership.

www.pollinator.org/threats

4. Wallace B. (May 9th, 2022) **Ecobuffers and Pollinators: Make the Most of your Marginal Land.** Agroforestry and Woodlot Extension Society.

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Avena partners with farmers, researchers, civil societies and customers to identify and promote regen ag farming practices. Contact us to learn more about our regen ag impact project partnership opportunities.

AVENA CERTIFICATIONS: PLEASE CONTACT US FOR FACILITY-SPECIFIC ACCREDITATIONS

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AVENA FOODS™

Avena partners with farmers, facilitating sustainable cropping systems incorporating rotations of oats and pulses. This, coupled with superior food safety and quality management systems, fulfills the promise of Avena Purity Protocol 'start safe, stay safe' gluten-free oats and our offering of Avena Best food ingredients. Product ranges are non-GMO, gluten-free and available conventional or certified-organic. "Partnering for safe, healthy diets and a sustainable world."