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## **Farms with diverse crops, habitats can help wildlife thrive: NTU study**



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With agricultural lands and livestock paddocks expanding into natural ecosystems, feeding the world can come at the expense of the world's biodiversity.

But a new study led by researchers at the Nanyang Technological University (NTU) has shown that farms can be more conducive for wildlife. By incorporating a patchwork of crops and semi-natural features into farms, these lands can host thriving ecosystems, they found.

Currently, most farming systems worldwide rely on monocultures, where large areas are dedicated to growing a single crop like wheat or corn. These planting patterns can, however, reduce the types of wildlife found in the area and lead to nutrient depletion of the soil, pest and disease proliferation, and erosion.

One of the largest global studies of its kind, the NTU-led study analysed nearly 6,400 farmlands across 24 countries – 12 per cent of which were in Asian countries such as South Korea and China. It was published in March in the scientific journal *Ecology Letters*.

The study found that farms with more diversified landscapes, such as those that grow different types of crops, or those that intersperse crop rows with semi-natural features, such as grassy strips, shrubs and wildflower patches, can support diverse species of insects, birds and bats.

This fosters a healthier balance between agriculture and the natural environment, where biodiversity flourishes alongside food production.

The study's co-author, Associate Professor Eleanor Slade, emphasised the study's universal value for policymakers, land managers and conservationists.

She said: "By prioritising strategies that enhance crop and landscape diversity, stakeholders can preserve biodiversity and promote sustainable agricultural practices."

For example, farmlands in Gangwon province, South Korea, reportedly had more wildlife species present when various crops such as potatoes, beans, cabbage and rice were planted alongside semi-natural features. This led to an increase in predators such as beetles and birds, pivotal for controlling pests on farms.

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