

Cultivating Conservation



How Local Farmers are Using Nature to Grow Greener

Re-establishing a Pond for Frost Protection

Over the past 10-15 years fruit and grape growers in the southern Okanagan Valley of British Columbia have faced substantial losses as unseasonably harsh weather wreaks havoc on produce. Responding to this challenge, Okanagan Similkameen Stewardship collaborated with Ranbir and Shinder Kambo, and Environmental Farm Plan to devise a nature-based solution for frost protection in their cherry orchard.

When the Kambos decided to replant three acres of fruit trees, they saw an opportunity to address the frost issue by re-establishing a pond. Beyond frost protection, the pond promised to enhance biodiversity on the farm, serving as habitat for beneficial insects and organisms crucial for orchard management, as well as wildlife, including species at risk like the tiger salamander and spadefoot.

Given the loss of many ponds and wetlands in the area due to development, creating a new pond could significantly aid these endangered species. Ranbir reached out to South Okanagan-Similkameen Stewardship for assistance. Okanagan Similkameen Stewardship brought expertise in pond design and rehabilitation work to the table, jointly funded through the Environmental Farm Plan program and a financial commitment from the Kambos, the project commenced.



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The land was re-contoured in the fall, followed by pond excavation in the winter and planting in the following spring. The pond was crafted with features tailored to support desirable breeding habitat for amphibians like spadefoots (being less athletic than some of their frog cousins, the slope of the soil into the pond is important- if too steep, spadefoots won't be able to exit).

The Kambos are pleased with the outcomes of this project. By transforming an unproductive area of the orchard back into a more natural state, they successfully mitigated frost damage in the vicinity. Furthermore, the biodiversity within the farm landscape has flourished. They take pride in the restoration of a critical wildlife habitat, noting that the pond is now utilized by endangered spadefoots.

In addition to providing frost protection in an orchard scenario, re-establishing ponds and wetlands can be a solution to water storage and flood mitigation as well!



“Nature-based Solutions” is a concept that covers a range of ecosystem-related land management approaches that include ecosystem-based adaptation, natural climate solutions, and green infrastructure to address common concerns. Many local farms are on the leading edge of applying nature-based solutions to enhance productivity on their farms while also benefiting wildlife through enhancing and maintaining habitat.