

Comic illustration by Joel Duggan. joelduggan.com

Farm Habitats

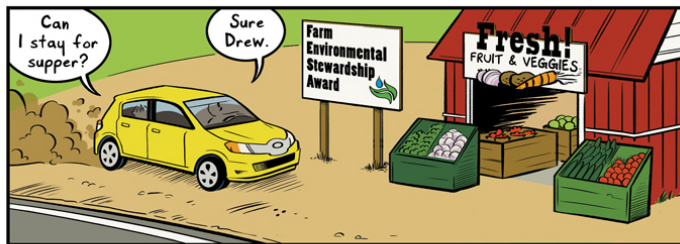
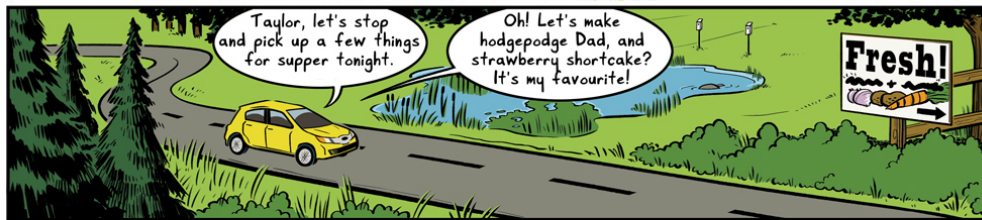
How farmers promote biodiversity

Introduction

Biodiversity is important to all Nova Scotians and everyone has a shared responsibility to conserve and protect it. Agriculture occurs in every county in Nova Scotia and most farms support a variety of ecosystems and habitats which are an integral part of our landscape. Farmers are experts in managing farm habitat so that crops, farm animals, and wildlife can thrive. Nova Scotia's farmers are committed to maintaining the land, their communities and the rural lifestyle.

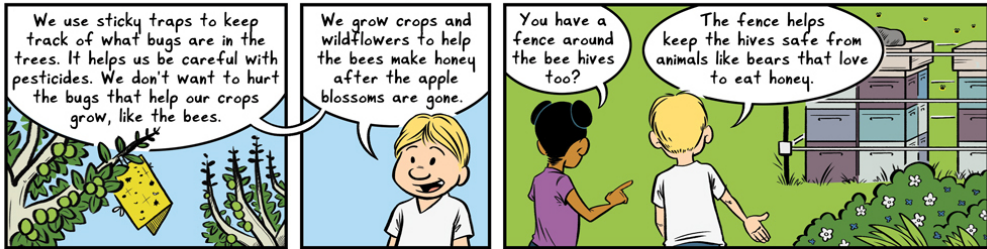
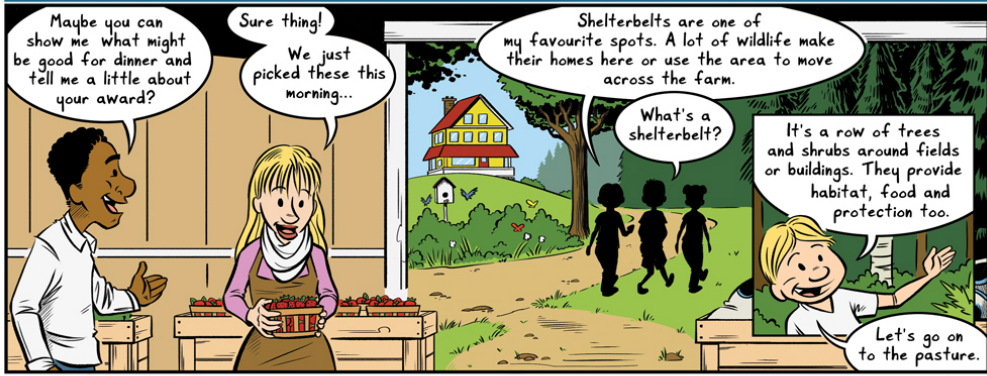
To celebrate National Wildlife Week (April 6-12, 2014) the Nova Scotia Department of Agriculture, Nova Scotia Department of Natural Resources, NS Federation of Agriculture's Environmental Farm Plan, Dalhousie University's School for Resource and Environmental Studies and the Herald in Education program are providing almost 10,000 Grade 4 students across the province with this special insert so they can learn about biodiversity on Nova Scotia farms.

This project was primarily funded under Growing Forward 2, a cost-shared initiative between the Governments of Canada and Nova Scotia.



Farm Environmental Stewardship Award
 The Farm Environmental Stewardship Award recognizes the contributions of farmers in providing improved water quality, healthy soils and environmental practices that benefit all Nova Scotians. The award is part of the Environmental Farm Plan Program created through a partnership of the Nova Scotia Department of Agriculture, Agriculture and Agri-Food Canada, the Nova Scotia Environmental Farm Plan Team and the Nova Scotia Federation of Agriculture. To be eligible for the award, farmers must have an environmental farm plan. The voluntary plan helps them identify, assess, and reduce environmental risk on their farms. There are more than 1,700 farmers with Environmental Farm Plans in Nova Scotia. Do you know of a deserving farm for the award? Visit www.nsfafane.ca/efp/efp-award/ for more information.



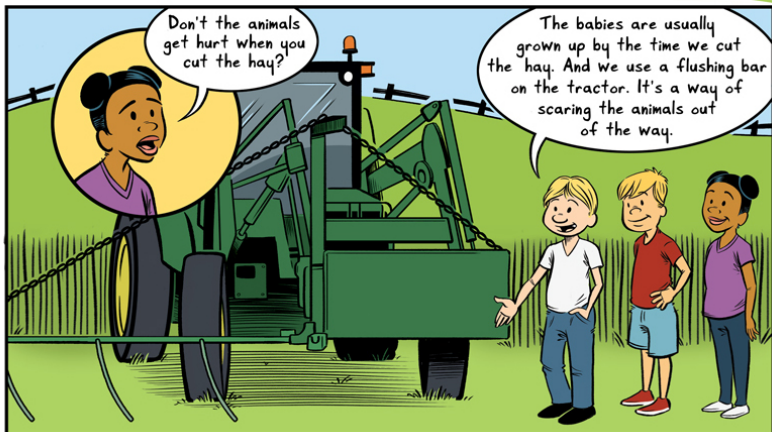
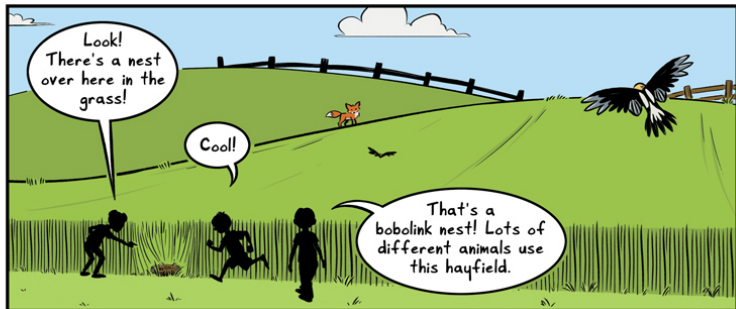


Species at Risk

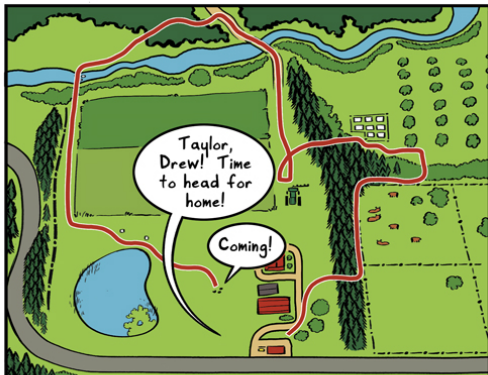
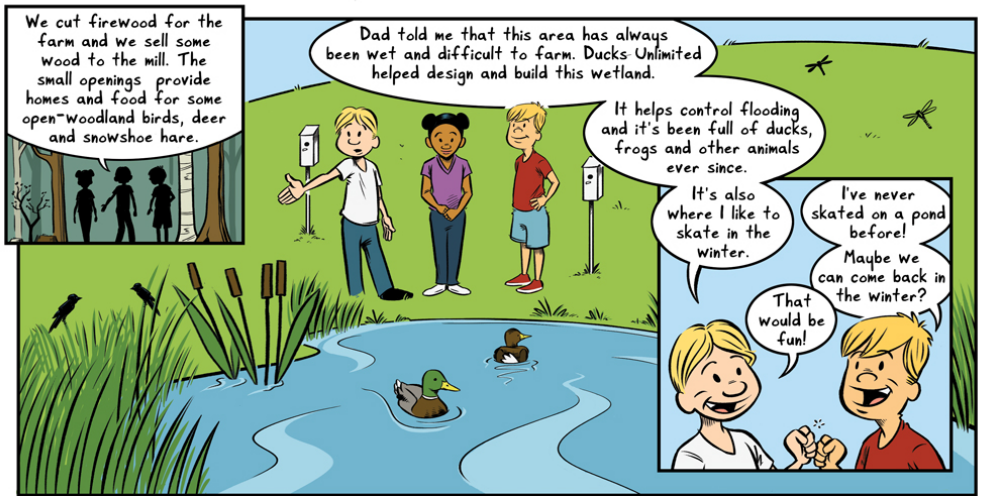
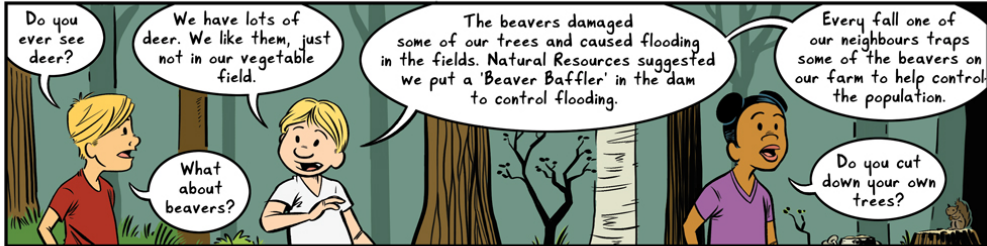
In Nova Scotia there are more than 60 species of plants and animals that are at risk of disappearing from the province. Several of these species-at-risk are found on Nova Scotia farmlands including: short-eared owl, bobolink, barn swallow, wood turtle and little brown bats.

The conservation and recovery of species-at-risk is a shared responsibility important to everyone.

To learn more about species at risk in Nova Scotia visit: novascotia.ca/natr/wildlife/biodiversity/species-list.asp



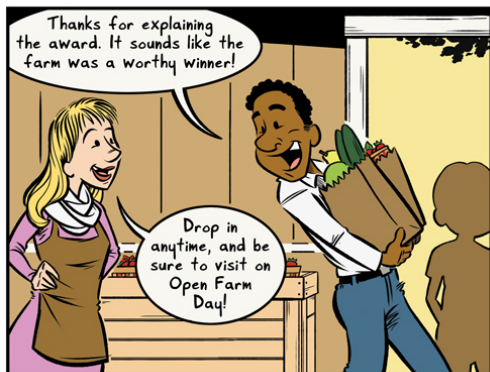
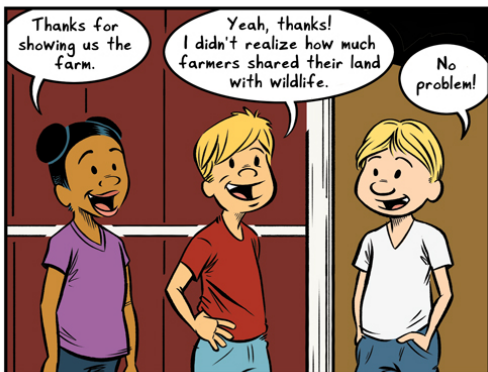
Special Educational Feature



Nuisance Wildlife

Wildlife make farms their home, but too many of a species like deer, bears, raccoons, coyotes, beavers and geese may cause damage becoming a nuisance. There are ways that landowners can deal with nuisance wildlife, but the best method is to try to prevent a conflict from occurring. Possible solutions around the home can include simple actions like keeping garbage and pet food indoors. Sometimes it may be necessary to build a fence or use deterrents such as animal scare devices. Hunting and trapping can also help to reduce overabundant populations of some species. A Beaver Baffler, like this "Clemson Beaver Pond Leveler" can be used to control flooding caused by beaver dams.

Figure 1. Clemson Beaver Pond Leveler



What is Biodiversity?

Biodiversity is the variety and interconnection of all life, including plants, animals, and other species, their genes and wildlife habitats and ecosystems. Farmlands include not only cropland, hay land and pasture - but also wetlands, rivers and streams, woodlands and shelterbelts which are hotspots for biodiversity.

Beneficial Management Practices (BMP's) for Biodiversity.

Agricultural Biodiversity Conservation (ABC) Plans are an initiative of the Eastern Habitat Joint Venture delivered through the Nova Scotia Department of Natural Resources. This partnership of government and non-government organizations (Wildlife Habitat Canada, Ducks Unlimited Canada, the Nature Conservancy of Canada, the Canadian Wildlife Service and the Government of Nova Scotia) is focused on conservation activities particularly for wetland areas. ABC Plans complement Environmental Farm Plans in acknowledging current farm practices which benefit biodiversity and identifying practices which will enhance biodiversity further.

Farm landscapes provide important habitat for wildlife and plants. Farmers may implement several BMPs to encourage biodiversity, including:

Delayed Haying - Many ground-nesting birds use hay fields for nesting. Using later maturing forage varieties and delayed haying can provide enough time for the chicks to leave the nest, or fledge before the hay is mowed.

Flushing Bars - Many species react to tractors by remaining still hoping to go unnoticed. Flushing bars work by dragging through the hay chains hanging from a bar connected to the side or front of the tractor to cause wildlife to leave or "flush" from the area, and avoid being harmed by the mower.

Mower Height Increase - Raising the height of the mower allows the blades to pass safely above small animals or nests on the ground. This also reduces the chances of cutting blades hitting the ground reducing damage to perennial forages and mower components.

Reduced use of chemical fertilizers and pesticides - Nutrient Management Plans balance nutrient inputs (manure, fertilizer) with crop requirements. Integrated Pest Management (IPM) involves monitoring crops for pests and only applying pesticides or alternative controls when needed. These practices prevent over application of nutrients and pesticides reducing the risk of contaminating waterways and damaging wildlife habitats.

Shelterbelts - Shelterbelts are rows of trees and other vegetation that can increase crop production (protection from winds, reduced soil erosion, improved microclimates), provide shelter for livestock (summer and winter), reduce greenhouse gases (remove and store atmospheric carbon) and disperse odours. They are home to many plants and animals and provide corridors or travel routes for many animals to move across the farm landscape.

Rotational grazing - Rotational grazing (moving livestock from one field to the next on a schedule) will help prevent overgrazing and damage to forages and soil. It improves feed quality for livestock and provides better cover for wildlife that may be sharing the pasture.

Riparian areas - Riparian areas are strips of land along the edges of watercourses which are maintained in permanent plant cover. Trees, shrubs and plants provide habitat which can prevent sediment and other contaminants from entering a watercourse, provide stabilization to stream banks, and shade to moderate water temperature which prevents declines in water oxygen content.

Vegetated Buffers - Grassed buffer strips have permanent ground cover which provides habitat and reduces the effects of soil and wind erosion, and filters contaminants and sediments from surface water.

Control Livestock Access to Wetlands and Waterways - Fencing cattle out of waterways will protect the riparian zone from damage, increasing biodiversity, and reducing overland runoff and erosion.

Constructed wetlands - Wetlands are areas that are covered or soaked with water for part or all of the year. They provide flood control, replenish ground water and trap and filter soil and nutrients. They also provide habitat for numerous species of wildlife, water fowl and insects. Numerous farmers have protected wetland areas and have constructed new wetlands on their farms.

Just for fun... WORD MATCH PUZZLE

for National Wildlife Week

Test your knowledge and learn some new biodiversity and agricultural terms. Match the word or phrase in the first column with the proper meaning in the second column.

- | | |
|--------------------------------|---|
| 1. Agriculture | a. area of land which is mostly trees |
| 2. Biodiversity | b. the study of relationships between the environment and organisms |
| 3. Buffer strips | c. where food and other goods are grown |
| 4. Conservation | d. the plants of an environment or region |
| 5. Ecology | e. agricultural practice that conserves or enhances environmental quality |
| 6. Ecosystem | f. an organism detrimental to humans or human concerns |
| 7. Environment | g. an ecological approach to the control of pest populations |
| 8. Farm | h. non-domesticated animal species |
| 9. Farmer | i. rows of trees which provide a barrier for protection |
| 10. Fauna | j. wildlife which may cause damage to a growing crop, an orchard, livestock or private property |
| 11. Flora | k. anything having to do with farming |
| 12. Flushing bar | l. sum of all organisms of the same species in an area |
| 13. Habitat | m. a place that provides the needs for food, water, and shelter |
| 14. Integrated pest management | n. in danger of becoming extinct from a region |
| 15. Nuisance | o. a community of plants, animals, microorganisms, and other organisms together with the nonliving components of their environment. |
| 16. Pest | p. land that is saturated long enough to promote aquatic processes |
| 17. Pesticides | q. variety of life in a particular area |
| 18. Population | r. a natural body of water including the bed and the shore |
| 19. Riparian area | s. a person who operates a farm |
| 20. Shelterbelt | t. management and preservation of natural resources |
| 21. Species at Risk | u. the surroundings of a plant or animal which influence its well being |
| 22. Sustainable agriculture | v. equipment intended to scare off animals so they can avoid harm |
| 23. Watercourse | w. interface between land and a body of water |
| 24. Wetlands | x. substance used to kill pests for the protection of crops or livestock |
| 25. Woodland | y. the animals of an environment or region |
| 26. Wildlife | z. area of land in permanent plant cover to protect air, soil and water quality |

17 X 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

OPEN FARM DAY

Sunday, September 21st, 2014

For more information:
www.meetyourfarmer.ca 902.893.2293

Supported by the Nova Scotia Federation of Agriculture



Come celebrate wildlife week at the
Shubenacadie Provincial Wildlife Park
for details please visit the park website at:
www.wildlifepark.novascotia.ca

PRIZE DRAW

Please fill out a ballot and submit for a **CHANCE TO WIN** one of many prizes to be drawn April 17, 2014.

Name one thing you learned about biodiversity on Nova Scotia farms.

Answer: _____

Name: _____

Contact information: _____

Ballots may be submitted by mail, email or fax to: Rick Hoeg, 176 College Road, Harlow Building, P.O. Box 890, Truro, NS B2N 5G6 Fax: 902-893-0244, email: hoegr1@gov.ns.ca