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Vegetative filter strips



This document was prepared by Health Canada's Pesticide Compliance Program to summarize the essential information regarding the construction, maintenance and use of vegetative filter strips (VFS) and the difference between them and spray buffer zones.

The role of a vegetative filter strip

A vegetative filter strip (VFS) is a strip of land with permanent vegetation mainly composed of grasses and located between a cultivated field and the bank of a body of water. It helps protect surface water located at the bottom of a slope by limiting the quantities of pesticides that enter it, as the VFS slows down runoff and filters transported pesticides.
The use directions of pesticides that are harmful to aquatic organisms, persistent in the environment, poorly soluble or which have a high potential for binding to soil particles **require** a VFS of 10 meters. For some other products, the use directions **recommend** a VFS as a best management practice.

Construction and maintenance of a vegetative filter strip

Construction of a VFS

- A VFS must be installed between an agricultural field and the bank of a surface water body located at the bottom of a slope before the application of a pesticide for which a VFS is required.
- The VFS must measure at least 10 meters, between the edge of the field and the body of surface water located on a slope (**see the diagram in the appendix**).
- The VFS must be composed of grasses, but can also contain other types of plants (shrubs, trees, others).
- The vegetation making up the VFS must be:
  - perennial
  - with long lifespan
  - resistant
  - with rigid stem
  - deep-rooted
  - native

Maintenance of a VFS

- The VFS should be mowed occasionally with grass reaching at least 15 cm high.
- Avoid compacting the soil and passing heavy equipment over the strip.
- It is necessary to regularly check whether the VFS contains exposed patches, especially after heavy rainfall, snowmelt or after intensive irrigation. Damaged areas must be restored.
- Built up soil should be removed from the strip.

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VFS or spray buffer zone?

- The VFS and the spray buffer zone (SBZ) are two different means of protecting the environment that complement each other and can be combined to protect sensitive habitats.
- The SBZ is a width adjacent to a sensitive environment to which the applicator does not apply a pesticide. It aims to reduce the extent of spray drift that would otherwise infiltrate non-target habitats.
- Unlike the VFS which is permanent, the width required for a SBZ varies depending on the pesticide used, the crop treated and the wind direction. Also, the VFS is permanent while the SBZ is set up according to different parameters.

Read the label

All pesticides registered in Canada have a Health Canada-approved label with a registration number. Read the pesticide label carefully, as it contains specific information on how to use it.

To find the most up-to-date label, use our online label search tool or search for “Health Canada pesticide labels” using your favourite search engine**.**

Users must follow the instructions on the labels,
including the ones about vegetative filter strips and spray buffer zones.

Using a pesticide contrary with the label directions
is a violation of the *Pest Control Products Act.*

For more information

Consult the Pest Management Regulatory Agency’s web page on Environmental risk mitigation : https://www.canada.ca/en/health-canada/services/consumer-product-safety/pesticides-pest-management/growers-commercial-users/environmental-risk-mitigation.html

This page is on the official Health Canada document. In the event of any discrepancy with the content of this information sheet, the content of this page prevails.

Health Canada's Pesticide Compliance Program (PCP) is responsible for enforcing the *Pest Control Products Act*. Visit: canada.ca/pesticide-compliance

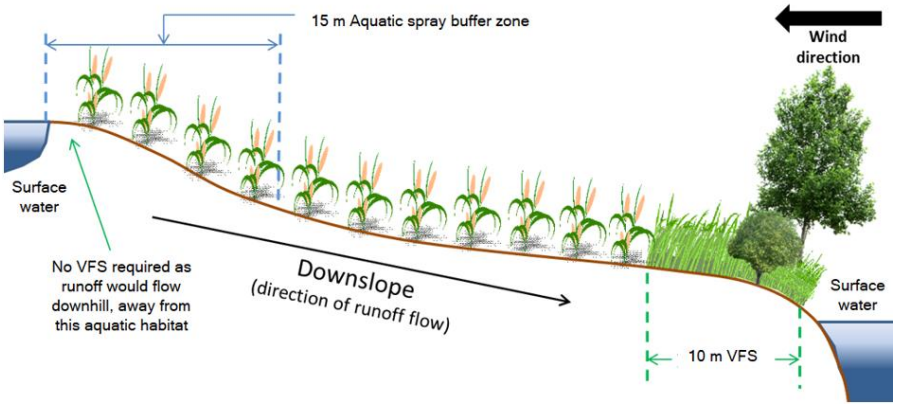
Appendix

Examples of vegetative filter strips (VFS) and spray buffer zones (SBZ)

In the following examples, it is assumed that the pesticide being applied requires a spray buffer zone (SBZ) of 15 metres and the construction of a vegetative filter strip. The SBZ in which the pesticide cannot be applied, is only required only at the time of application of the pesticide : the untreated area is between the area being treated and the closest downwind edge of the sensitive habitat.

Diagram 1 – Wind direction is blowing to the left:

- There is a 15 meter spray buffer zone at the top of the hill to protect the aquatic habitat to the left of the field.
- It would not be necessary to set up a spray buffer zone on the right side, as the wind blows to the left.
- There is a 10 meter vegetative filter strip on the downward slope of the field at the junction of the water body.



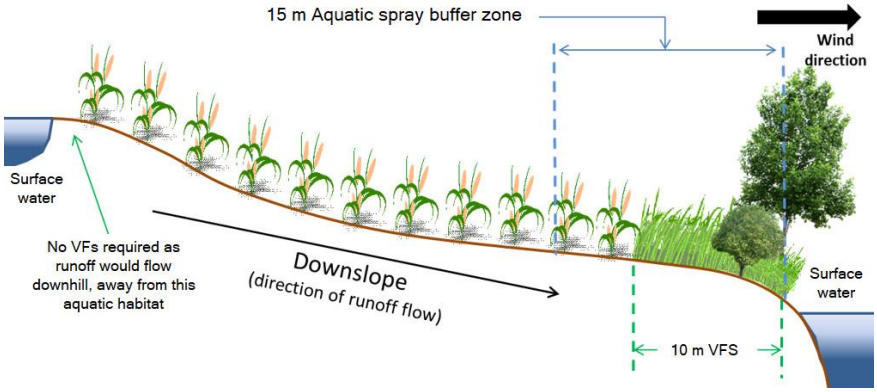


Diagram 2 – Wind direction is blowing to the right:

- A 15 meter spray buffer zone has been set up on the right to protect the aquatic habitat to the right of the field.
- There is a 10 meter vegetative filter strip on the downward slope of the field at the junction of the water body.
- In this example, as the 10 meter vegetative filter strip is within the 15 meter spray buffer zone, only 5 meters of the crop needs to be left unsprayed to comply with the requirement for a 15 meter spray buffer zone.

Health Canada do not require a spray buffer zone for vegetative filter strips, unless there is a pre-existing sensitive terrestrial habitat within them.