Understanding spray buffer zones and vegetative filter strips

Spray buffer zones and vegetative filter strips are two effective tools that growers can use to protect non-target areas from pesticide applications. When applying certain pesticides to some crops, Health Canada's Pest Management Regulatory Agency (PMRA) may require a vegetative filter strip in addition to a spray buffer zone. Always refer to the product label to confirm spray buffer zone and vegetative filter strip requirements before making a pesticide application.

What's the difference?

Spray buffer zones provide a barrier between the area being treated and the nearest downwind edge of a non-target sensitive habitat, be it on land or in the water. Spray buffer zones help reduce the amount of spray drift entering that non-target habitat. The PMRA establishes the size of the spray buffer zone required, which may be unique to the pesticide being applied, the application method, and the target crop. These requirements are stated on product labels. Drift, and as a result, the required spray buffer, can be significantly reduced if pesticides are applied under ideal conditions.
Visit **www.hc-sc.gc.ca/cps-spc/pest/agri-commerce/drift-derive/drift-derive-eng.php** to customize a spray buffer zone to your spray conditions when the label allows.

Vegetative filter strips are a tool to protect surface waters from pesticide runoff and are different from spray buffer zones on a product label. These permanently vegetated strips of land separate an agricultural field and a downslope surface body of water. PMRA requires vegetation to be composed of grasses; it may also include shrubs, trees and other vegetation that is perennial, long-lived, hardy, deep rooted, and preferably native. The width of the strip is defined as the area from the edge of the field to the edge of the surface water body.

Certain pesticide labels will require a vegetative filter strip while other labels will recommend a vegetative strip as a best management practice. Read the label for product-specific requirements and instructions.

Your province or municipality may have other requirements in addition to those set by the PMRA. Consult provincial and local regulations to ensure compliance before making a pesticide application.

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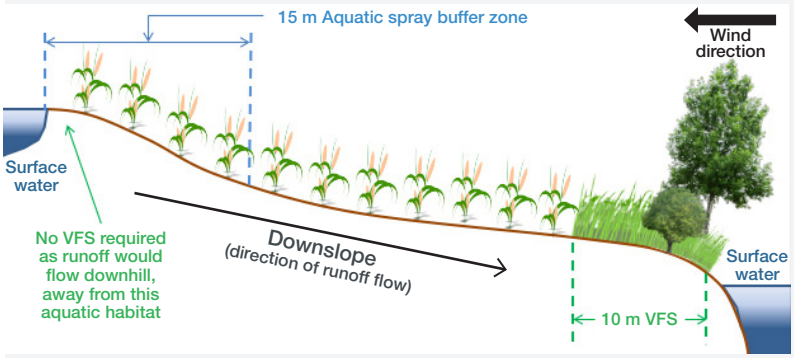
These are general considerations. Always consider the specific situation on your field and exercise good agronomic practices.

Putting it all together

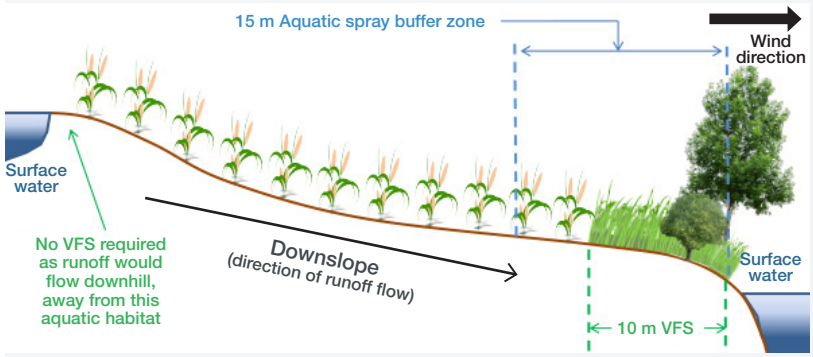
Here are two examples demonstrating spray buffer zones and vegetative strips.

Figure 1: Wind blowing left



- At the top of the hill, a 15 m aquatic spray buffer zone is needed to protect the aquatic habitat.
- The wind is blowing to the left, so a spray buffer zone is not needed on the right side of the field.
- The downslope of the field leads to a body of water, so a 10 m wide vegetative filter strip is required.

Figure 2: Wind blowing right



- At the bottom of the hill, a 15 m aquatic spray buffer zone is needed to protect the aquatic habitat.
- The downslope of the field leads to a body of water, so a 10 m wide vegetative filter strip is required.
- The 10 m vegetative filter strip falls within the 15 m aquatic spray buffer zone, so just 5 m of the crop must be left unsprayed to achieve a 15 m spray buffer zone.

WONDERING ABOUT BUFFER ZONE REQUIREMENTS ON YOUR LAND?

The PMRA has created an online calculator to help you make the right choice for your farm. Access it at **www.hc-sc.gc.ca/cps-spc/pest/agri-commerce/drift-derive/drift-derive-eng.php** to see how applying under ideal conditions can reduce your required spray buffer. Use the PMRA buffer zone calculator only when the product label allows.

General tips for maintaining a vegetative filter strip

- Avoid driving heavy machinery over the strip, as this can cause soil compaction.
- Check the strip for bare spots on a regular basis, particularly after heavy rainfall, irrigation and snow melt. Replace vegetation as needed using a variety of perennial native species (grasses, shrubs, and trees).
- Mow the strip occasionally, ensuring the grass remains at least 15 cm high to maintain its effectiveness.
- Remove built up soil from the strip.
- Spot treatments are the only pesticide treatment permitted in a vegetative filter strip.