



Ministry of  
Environment and  
Climate Change Strategy

# PESTICIDE DRIFT MANAGEMENT AROUND SCHOOLS

A Short Guide for School Administrators, Growers, and Parents



Integrated Pest Management Program

## Schools and Agricultural Spraying

There are many areas in British Columbia where schools are located close to agricultural lands on which pesticides are sprayed, such as orchards, vineyards, or field crops. This proximity to agricultural spraying could potentially expose students to inadvertent contact with pesticides if proper practices are not followed. Fortunately, there are a number of simple strategies and practices that can be implemented that minimize the risk of any pesticide exposure to students, and can help define roles for everyone involved, including school administrators, teachers, parents, and growers.



A number of schools in BC have active agricultural operations nearby that routinely spray pesticides on their crops.

## What is pesticide spray drift?

Pesticide spray drift involves the movement of pesticides through the air and away from their intended target. Scientists recognize that almost every pesticide application produces some amount of drift from the target area. Not all sprays are harmful, but applicators are legally required to take appropriate measures to ensure that any off-target drift does not reach a level that could be harmful to people.

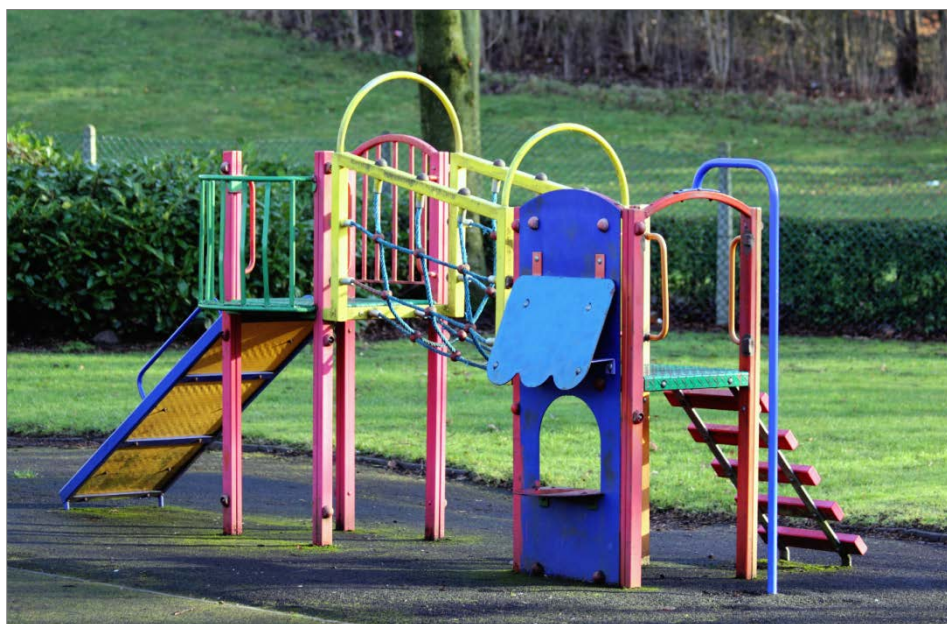


***“Pesticide drift involves the movement of pesticides through the air and away from their intended target”***



### How else could pesticide exposure occur?

Exposure to pesticides could occur either through direct contact with spray drift at the time of spraying, or through contact with pesticide residues that have landed on school sports fields, play grounds, or other facilities that students use. In addition, exposure from drift could occur at different times: during school hours when children are playing on the grounds, when students are arriving or leaving school on foot, or when the grounds are being used for recreation outside of school hours.



### Who has a role to play to ensure that the risks are minimized?

School staff, neighbouring growers, parents, and students all have important roles to play in minimizing the risk of exposure to pesticides by implementing the practices presented in this guide. For everyone involved, open and timely communication of information is a key component of success, and will help to resolve any questions or concerns that may arise.







***“Open and timely communication of information and concerns is a key to success.”***

## What steps can be taken to minimize the risk of pesticide exposure around schools?

### Guidelines for Growers

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- **Timing of spraying:** Whenever possible, avoid spraying close to the school during regular school hours (8:00 am – 5:00 pm), and when the school grounds are in use for organized sports or other public events during evenings, weekends, and school breaks. If you do have to spray during school hours, be particularly aware of when students are arriving to school in the morning and leaving school in the afternoon. Ideally, spraying of crops close to school grounds and other higher-risk areas should occur early in the morning when the likelihood of activity around school grounds is lowest.
  - **Direction of spraying:** Avoid directing sprays from an air-assisted sprayer toward the school if there is risk of drift onto adjacent school grounds. Avoid spraying near borders with school grounds and pedestrian routes if the air is moving toward those areas.
  - **Wind speed and direction:** Establish a protocol to monitor wind speed and direction. A simple, yet effective method is to use a 30 inch length of flagging tape mounted on the top of a fence post close to adjacent schools. A 30 inch piece of flagging tape will fly horizontally at approximately 8 km/hr. Hand-held wind meters are also a simple tool that can provide accurate information on wind speed right at your fingertips. Cease spraying if monitoring indicates that conditions have changed and that the potential for drift has increased.
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- **Communication and notification:** Before each spray season, provide the school principal with contact information of the person(s) responsible for spraying operations. Discuss with the principal whether they would like a notification system established for spraying. For example, a colour-coded flag system to indicate the nature of the sprays to be applied can be used based on the symbols on the label
  - E.g. red ■ =   yellow ■ =  green ■ = no poison symbol
- This type of system is simple to set up, with flags set out in clearly visible locations the evening before an anticipated pesticide application.
- **Scheduling of events on school grounds:** Ask the school principal if they can provide a schedule of events taking place on school grounds outside of school hours to help you plan your spray schedule.
  - **Pesticide storage, product choice, and label adherence:** Locate pesticide storage and handling sites well away from school grounds and pedestrian traffic. Whenever possible,

choose the pesticide with the lowest toxicity to people, ensure that precautions taken are appropriate for the product being sprayed, and always read and follow the pesticide label.

- **Sprayer technology:** Consider equipping sprayers with drift-reducing nozzles (e.g. rain drop or air-induction) if management objectives can be achieved. If the nature of the crop allows, tower sprayers, over-the-row sprayers, or sprayers with spray shields can significantly reduce the potential for drift compared to more traditional sprayer types such as airblast sprayers.
- **Calibration and sprayer operation:** Ensure that air-assisted sprayers are properly and regularly calibrated to maximize target interception and minimize blow-through by adjusting fan speed, tractor speed, and nozzle selection. If multiple individuals will be operating the sprayer, ensure that all sprayer operators are familiar with the proper operation of the sprayer and any notification procedures in place.
- **Moving sprayers between locations:** Where possible, use alternate roads to those adjacent to school grounds on which to move sprayers between production areas. In addition, ensure that nozzles do not drip to avoid contaminating public roads.

#### *Guidelines for School Administrators*

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- **Grower contact information:** before the start of the spray season, confirm the contact information of neighbouring growers. Establish whether or not the owner will be managing the property and conducting the spraying, or if the property is being leased for the season.
- **Communication with the grower:** Discuss with the grower any questions you have, and how you can work together to minimize any concerns that might arise. Be proactive in providing the grower with relevant information on scheduling of events on school grounds, and any specifics of student activities that may be important for them to be aware of.
- **Layout of school grounds:** Identify any areas of the school grounds closest to where agricultural spraying will take place, and where possible, arrange that such areas be irrigated frequently when pesticides are being applied to reduce any potential residues on grass and other surfaces.
- **Closing windows:** Ensure all windows facing agricultural lands are closed when school is not in session.



- **Communicating with teachers and students:** Inform students and staff just prior to the spray season that agricultural pesticide spraying will be taking place. Discuss any relevant aspects that apply to them and why they are important. Emphasize that if all parties involved follow good practices then the risk of any pesticide exposure is very low.
- **Communicating with parents:** If parents have questions or concerns about agricultural spraying, share this guide with them and discuss the specific steps you are taking to minimize any potential risk of pesticide exposure.
- **Specific advice for teachers:** Advise teachers that if they do observe agricultural spraying taking place during any time when students are playing on school grounds and they feel there may be a risk of pesticide exposure, the simplest precautionary action is to move the students indoors.
- **Hedges or tree rows:** Landscaping elements such as hedges or tree rows planted on the edge of the school grounds adjacent to agricultural areas can be extremely effective at capturing any spray drift. For example, a thick cedar hedge can trap spray drift particles very effectively. It is advisable to seek advice from a landscape professional as to important factors such as species, placement, and maintenance requirements to consider for your specific site.



***“A thick cedar hedge can trap spray particles very effectively”***

## Guidelines for Parents

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**Discussing the issue with your children:** Parents should discuss this issue with their children, and emphasize that they can also play an important role by being aware when walking or biking adjacent to orchards. Children should know what a typical agricultural sprayer looks and sounds like, and simply to be cautious if they observe spraying occurring when they are walking or biking.

- **Emphasizing what not to do:** children should never walk or bike through adjacent orchards or crops going to or from school, and never pick or consume any produce, such as fruit off of trees.
- **Discuss alternative routes to school:** For children that walk or bike to school in agricultural areas, parents should discuss alternative routes that a child could take to get to school if spraying is taking place along their normal route and they wish to use a detour.

**Communicating with school administrators:** If you have concerns, share and discuss this guide with school administrators.

## Where can I get more information?

If either growers or school staff have concerns or questions about how to implement the recommendations in this guide, Ministry of Environment and Climate Change Strategy staff in the Integrated Pest Management Program can answer questions and provide further guidance. Please send us an email to [bc.ipm@gov.bc.ca](mailto:bc.ipm@gov.bc.ca).

## Do you have a complaint?

Complaints or concerns about pesticide use practices in British Columbia can be sent to the ministry at [ipmcomplaints@gov.bc.ca](mailto:ipmcomplaints@gov.bc.ca).



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