|  |
| --- |
| **Company Information** |
| **Company Name:** |  |
| **Workplace Location:** |  |
| **Name of Safe Work Practice:**   | Pesticide Use | **Release Date:** |  |
| **Safe Work Practice #:** |  | **Revision Date:**  |  |
| **Management Signature:** |  | **Date of Approval:** |  |
| **Instructions** |
| This safe work practice must be reviewed annually or any time the task, equipment, or materials change. |
| Do **NOT** perform the duties listed in this *Safe Work Practice* until you have been appropriately trained and authorized to do so by your supervisor |
| **Required Training**:  | Pesticide applicator license or assistant pesticide applicator course (see regulations to determine what is required for your situation) |
| **Required Personal Protective Equipment and Devices:** |
|  | Eye Protection Required |  | Gloves Required [***enter specific type of glove here***] |
|  | Full Face Shield Required |  | Protective Clothing Required |
|  | NIOSH Approved Respirator Required |  | CSA Approved Safety Footwear Required |
|  | Dust Mask Required |  |  No jewelry, watches, rings, necklaces etc. |
|  | Long or loose hair must be tied back or contained |  | No loose-fitting clothing |
| **Potential Hazards:**  |
|  |
| **Pre-Operational Safety Checks:**  |
| Ensure required PPE is available and workers are trained on how to use the PPE. Ensure SDS sheets are available, manufacture labels are intact, and workers have read the labels. If equipment is being used, equipment has been maintained and calibrated appropriately and workers have been trained on how to use equipment. |

|  |
| --- |
| **Safe Work Practice** |
| **Before you Start** |
| 1. Inspect required personal protective equipment and replace if required.
2. Put on all required personal protective equipment.
3. SDS sheets and manufacturer labels are available, read and understood.
 |
| **While you’re Working** |
| ***Mixing*** |
| 1. Mixers and loaders must be properly qualified and trained
2. Before applying pesticides, read the product label and consult the material safety data sheet.
3. Before handling a pesticide, put on the proper personal protective equipment (i.e. Chemical-resistant footwear, chemical-resistant apron, coveralls, chemical-resistant gloves, face shield, respirator)
4. Ensure that proper emergency facilities, including washing facilities and first aid equipment, are provided. Emergency phone numbers must be made available at the mixing and loading site.
5. Mix pesticides only in good light and with adequate ventilation. Stand upwind to minimize airborne exposure.
6. It is always advisable to place backflow prevention devices that protect against siphonage effects only at the highest point in the water system
 |
| ***Application Procedures*** |
| 1. Pesticide applicators must be qualified and trained according to legislated requirements.
2. Before applying pesticides, read the product label and consult the material safety data sheet.
3. Ensure that the application equipment is calibrated and in safe running condition before use
4. Before handling a pesticide, put on the proper personal protective equipment (i.e. Chemical-resistant footwear, chemical-resistant apron, coveralls, chemical-resistant gloves, face shield, respirator)
5. Make sure that emergency facilities such as wash water are at hand in the event of an accident. When a worker is applying a pesticide, particularly one that is very toxic, it is necessary to periodically check the well-being of the worker. When a worker is applying pesticides in a greenhouse, mushroom barn, or similar enclosed space, the work must be done in a manner that rescue can be carried out by a person equipped and able to do so.
6. As a general rule, do not apply pesticides if wind speed is more than 8 km/h (5 mph) or if air temperature is above 30 ̊C.
7. Before application begins, post required warning signs at normal points of worker entry to the spray site
8. Take all reasonable precautions to prevent drift or spread of the pesticide. If pesticide has drifted to another worksite, the Regulation requires that the employer in control of the pesticide must notify the employer of the second worksite so that safety measures can be implemented.
9. Use pressures, nozzle types, spray angles, etc., that are recommended or required by the responsible authorities.
10. Workers involved in spray work along or near road rights-of-way must be protected against traffic hazards.
11. Sources of electrical power may present a hazard when water-based formulations are sprayed nearby.
 |
| ***Disposal of Pesticides and Containers*** |
| 1. Carefully figure out your pesticide requirements to ensure minimal waste.
2. Pesticide wastes should be properly disposed of at a special waste management facility. Disposal of large quantities of special wastes from commercial firms or farmers should be arranged through the firms that provide this service.
3. It is unsafe to dispose of pesticides or other wastes such as rinses from spray tanks in the catchment area of water sources such as dugouts and wells. Serious contamination of drinking water may result.
4. When container is empty, immediately rinse glass, plastic, and metal containers using the triple rinse or jet rinse techniques: Triple rinse (Rinse container with the appropriate solvent, usually water. Fill the container about one-quarter full, replace closure, shake and pour the rinse water into the spray tank, and drain thoroughly. Repeat twice), Jet rinse (Invert the container and drain into the spray tank. Puncture the bottom area of the container with the jet rinse and spray for 30-60 seconds)
5. Multiple washes do not completely clean residues from pesticide containers. Follow Ministry of Environment requirements and recommendations to ensure that washed containers are either returned to the supplier or are destroyed and disposed of in an approved manner.
 |
| ***Personal Cleanliness and Wash-up Facilities*** |
| 1. Immediately cleanse any body area contaminated with pesticide. Wash hands and face after pesticides are handled and before break periods or lunch. Wash thoroughly when finished for the day and change into clean clothing.
2. Wash contaminated clothing before re-use. Hot wash temperatures of at least 60 ̊C are advised. Bleach and detergent are particularly useful when washing clothing contaminated with carbamates and organophosphates.
3. It is a good practice to wash clothing made of absorbent materials such as cotton more than once if heavily contaminated with pesticide. Never wash contaminated clothing with other laundry.
4. Avoid eating, drinking, or smoking when working with pesticides.
5. Make sure enough soap and water is available for routine cleanup. Shower facilities must be available for mixers, loaders, applicators, and flaggers to wash effectively at the end of the work period. Arrangements must be made to ensure that such workers have clean clothing and are provided with appropriate, clean protective equipment at the beginning of every work shift.
6. Ensure that where persons could be exposed to chemicals, proper washing facilities are available, as required by the Occupational Health and Safety Regulation.
7. Ensure that emergency washing facilities are provided in the event of harmful contact with pesticides, as required by the Regulation. Various plumbed-in and portable systems for use at worksites are available.
 |
| **Field Application** |
| ***Mixing*** |
| 1. Before handling a pesticide, read the product label, consult the safety data sheet, and wear the right personal protective equipment.
2. Use a sharp knife or other cutting implement to open paper containers; do not tear them. Stand upwind while opening.
3. Mix pesticides in good light and with adequate ventilation.
4. To reduce dust exposure, pre-mix wettable powders with a small amount of water before adding to mixing tanks.
5. Fill mixing tanks half full with water before adding pesticide concentrates.
6. Pouring concentrates or slurries into large mix tanks may be dangerous because of the height of the tank opening. It is essential to keep pesticide containers below eye level to minimize the chance of splashes onto the face. Work platforms or pumping systems can help eliminate this hazard.
7. Do not contaminate drinking or recreational water. Install an appropriate backflow preventer such as a check valve or air gap if filling water is drawn from a drinking or irrigation water system or from a surface water source.
8. Make sure that lids are secured on all pesticide mix tanks after filling. If a tank is not provided with a lid (for example, if used in a dipping operation), the tank must be enclosed with walls, fences, or guardrails or other means to prevent any person from accidentally falling in.
 |
| ***Application Procedures*** |
| 1. Before applying pesticides, read the product label and material safety data sheet, and wear the right personal protective equipment. Minimum requirements may include chemical-resistant boots, raingear, hat, gloves, goggles, and an effective, approved respirator.
2. Ensure pesticide application equipment is calibrated and in safe running condition before use. Maintenance checkpoints should include pressure hoses, pressure regulators, power take-off (PTO) guards, nip point guards on belt drives, and fan guards on air-blast sprayers.
3. Before applying pesticides, ensure that appropriate warning signs are posted at normal points of worker entry to the spray site, and take any other necessary measures so that pesticides are not a hazard to other workers. Notify neighbors so children and pets may be kept away from the treated area.
4. Do not exceed recommended application rates. If those rates do not control a pest, consult with the appropriate authorities such as the B.C. Ministry of Agriculture, the B.C. Ministry of Environment, or Agriculture Canada.
5. Use minimum operating pressures. Recommended pressure ranges are 200–275 kPa (30–40 psi) for herbicides and 500–2,100 kPa (75–300 psi) for insecticides or fungicides.
6. Use the proper nozzle for the job. Cone spray patterns are not meant for herbicides. Nozzle and swirl plate dimensions are particularly important in low-volume air-blast operations. Specialty anti-drift nozzles are available for spray applications. Other useful design features include quick-release nozzles and anti-drip valves.
7. Use nozzles with the minimum possible spray angle. The wider the angle, the greater the possibility of drift.
8. With boom applicators, use the minimum possible boom height to minimize the potential for spray drift.
9. Consider the use of wick applicators and similar devices to cut down on any potential for drift.
10. Spray pesticides at speeds as directed by product manufacturer.
11. Do not misapply pesticide because of unnecessary overlap in spray patterns. Swath edges on grain crops, turfs, etc. can be marked with devices that apply materials such as aluminum particle suspensions, foam, or latex paints. Switching off the applicator while turning at the end of a spray swath can help avoid over-application of pesticides on the inner area of the turn.
12. Blank off any nozzles not needed.
13. Where appropriate, use thickening agents to reduce the likelihood of drift.
14. As a general rule, do not spray if wind speed is more than 8 km/h (5 mph) or if air temperature is above 30°C. To minimize any contact with pesticide drift, wherever possible begin the application on the downwind side of the field, and proceed at right angles to the direction of the wind (i.e., cross wind).
15. If there is a chance that water spray may contact exposed electrical equipment (for example, when air-blast operations are carried out near stingers), take appropriate precautions.
16. After the application of pre-emergent herbicides on dry soil, wetting the soil periodically can help ensure that pesticide-contaminated dusts are not produced.
17. With backpack units: –Wherever possible, place the unit on a waist-high surface such as a table, tailgate, etc. before slipping into the shoulder straps to minimize the chance of spill while putting the unit on. Take the unit off using a similar procedure. –Always walk upright to avoid any leakage through filling caps or air-bleed holes. –Never walk backwards while carrying such units.
 |
| ***Maintenance and Repairs to pesticide storage & application equipment*** |
| 1. Maintenance workers must be informed of the product last used in the equipment.
2. Repairs and maintenance should only be conducted by someone qualified who has been adequately instructed in safe work procedures.
3. Repairs and maintenance must comply with the manufacturer’s guidelines.
4. Unless the work is an emergency / in-field repair, the equipment must be thoroughly cleaned prior to work beginning.
5. For emergency / in-field repair work, the worker conducting the repairs must wear the same personal protective equipment required to apply or mix the product.
6. The equipment must be in a safe condition before maintenance or repair work is carried out, including welding operations.
7. Ensure sprayer equipment is locked out prior to performing maintenance or repairs
 |
| **After you Finish** |
| 1. Ensure accurate pesticide application records are maintained.
 |
| **If an emergency situation occurs while conducting this task, or there is an equipment malfunction, shut the equipment off immediately and follow the lock out procedure.** |
| **REPORT ANY HAZARDOUS SITUATION TO YOUR SUPERVISOR/MANAGER OR EMPLOYER IMMEDIATELY** |

