

# BCHW Noxious Weeds and Invasive Plants Treatment with Herbicide

R6-FS-6700-7 (08/12)

U.S. Department of Agriculture Forest Service	1. WORK PROJECT/ACTIVITY <b>BCHW Noxious Weeds and Invasive Plants Treatment with Herbicide</b>		2. LOCATION <b>USFS – Forest Wide</b>		3. UNIT Region 6	
JOB HAZARD ANALYSIS (JHA)	4. NAME OF ANALYST <b>Back Country Horsemen of Washington</b>		5. JOB TITLE <b>BCHW Safety Committee</b>		6. DATE PREPARED <b>April 2020</b>	
7. TASKS/PROCEDURES	8. HAZARDS	9. ABATEMENT ACTIONS Engineering Controls * Substitution * Administrative Controls * PPE		10. POST ABATEMENT ACTION RISK RATING (Severity/Probability Matrix)		
				Severity	Probability	Risk Code
<b>Purpose</b>	This JHA includes safety procedures and practices while conducting invasive plant manual and herbicide treatments, including preparation, communication, and other abatement actions. The plan covers all BCHW volunteers, and cooperators. This document includes all related safety issues associated with surveys, manual and herbicide treatments. The Project Manager is responsible for the overall implementation of the JHA.			<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<b>Conditions of Treatment</b>	<p>Serious potential illness or violation of law due to lack of training or certification.</p>	<p>Project leader will ensure personnel receive training and certification in the use of herbicides and understand the following safety practices per hazards listed in this JHA.</p> <p>Awareness of appropriate restricted use herbicide applications and licensing requirements. Trained volunteers can work without a license only if the licensed public applicator is on site and in communications with them. (WSDA, Chapter 17.21 RCW, Washington Pesticide Application Act)</p>		<b>II - Critical</b>	<b>C - Occasional</b>	<b>4 - Low</b>

<p><b>Communications and Safety Information</b></p>	<p>Serious potential illness due to workers due to lack of communication and hazard awareness.</p>	<p><b>Emergency Response:</b> Project leader will review emergency response procedures with volunteers and ensure understanding of procedures for personal contamination specified by the product label and Safety Data Sheets (SDS).</p> <p>Project leader will ensure that at least one person in each group will have communications (i.e. radio with extra batteries, cell phone or satellite phone) and must be trained in the proper use, including established check-in/check-out procedures.</p> <p>Check- in / check-out procedures for field work include notifying the Noxious Weed Board Coordinator of the area in which the crew is working on a daily basis. This information should also be displayed on the BCHW web site and updated as needed. At the end of each work day, the Noxious Weed Board Coordinator must also be notified of crew return.</p> <p>Project leader will ensure that applicators have a list of the names and phone numbers for spill emergencies available in a current field binder, found in work vehicles.</p> <p>Project leader shall ensure that safety data sheets (SDS's) and the manufacturer's product labels are available for all herbicides in a field binder, stored in work vehicles and communicated to work crew.</p> <p>Project leader must discuss the SDS's and ensure specific hazards associated with mixing, loading, and applicator(s) use are clearly communicated and understood.</p>			
<p><b>Personal Protective Equipment (PPE)</b></p>	<p>Serious potential illness or death due to workers due to lack of protective gear.</p>	<p>Volunteers will use the PPE specified by the <b>product label, SDS</b>, as well as any additional PPE needed for a specific project outlined in this JHA.</p> <p>Always read SDS label for required PPE.</p>	<p><b>1 – Catastrophic</b></p>	<p><b>D -- Seldom</b></p>	<p><b>4 -- Low</b></p>

		Commonly required PPE include long pants, long sleeved shirts, <b>safety goggles</b> (rated for chemical use), <b>nitrile gloves</b> for herbicide use, <b>leather gloves</b> for manual treatments, and close toed shoes and socks. Crew members must supply any required, non-agency provided PPE when needed.			
<b>Spill Response</b>	Herbicide spills and skin or food contact	<p>Wear PPE required on the SDS sheet and product label.</p> <p>Carry <b>spill kit</b> with water, eye wash and absorbent material. Project leaders will ensure volunteers are trained on how to appropriately respond to spills.</p> <p>Diluting spilled chemicals with water is the most efficient way to clean up spills when enough water is available. Otherwise, spills should be cleaned-up using a shovel and heavy duty garbage bags. An absorbent (such as kitty litter) can also be used. Dispose of any absorbent or contaminated soils in an empty garbage bag, and keep contents away from food or drink.</p>	<b>I – Catastrophic</b>	<b>D -- Seldom</b>	<b>4 -- Low</b>
<b>Transporting Herbicide</b>	Herbicide spills and contamination.	<p>Make sure that lids and caps are on tight. Secure all chemicals, containers, and equipment in the upright position. Place herbicides in sturdy plastic containers and secure the containers.</p> <p>Keep chemicals and equipment away from any areas containing food or drink, or where passengers may be seated.</p> <p>Carry herbicides inside a catch basin or wrapped in heavy duty plastic bags once the containers have been opened.</p> <p>Keep fire extinguishers in any work vehicle transporting herbicide.</p>	<b>II -- Critical</b>	<b>D -- Seldom</b>	<b>4 -- Low</b>
			<b>III -- Marginal</b>	<b>D – Seldom</b>	<b>4 – Low</b>

<p><b>Mixing Herbicides</b></p>	<p>Herbicide spill, skin contact, illness and product contamination</p>	<p>Always wear required PPE.</p> <p>Review the label before opening containers.</p> <p>Mix chemicals as close to the work site as possible, given the limitations of water availability.</p> <p>Choose an appropriate mixing area away from water, other people, or animals.</p> <p>Make sure backpacks are not exposed to punctures (tools in truck bed, branches along the roadway), or other physical stresses that might cause cracks.</p> <p>Measure accurately; follow label instructions, and only mix the amount you plan to use immediately.</p> <p>Equipment must be operational and calibrated prior to filling and using.</p> <p>Always keep your head above the fill hole.</p> <p>Do not allow herbicide to splash or spill.</p> <p>Fill the tank with water then add herbicides and close backpacks and concentrated herbicide containers immediately.</p> <p>Be aware of the effects of mixing chemicals (synergism). Wear proper PPE. Compatibility tests should be performed if new herbicide combinations or concentrations are being considered. <i>Always</i> read the SDS before mixing any herbicides in which compatibility is unknown. Mixing should occur in the following order: liquid herbicides, surfactants, and dyes.</p>	<p>III -- <b>Marginal</b></p>	<p>D – <b>Seldom</b></p>	<p>4 – <b>Low</b></p>
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<p><b>Spraying Operations</b></p>	<p>Herbicide skin contact and inhalation resulting in illness</p>	<p>Volunteers must ensure PPE fits properly to avoid hampered field of vision, particularly goggles. Also, inspect gloves and boots for cracking or punctures.</p> <p>Project leader review heat associated safety concerns. Wearing PPE makes applicators vulnerable to heat exhaustion, heat stroke, or dehydration. Ensure applicators take frequent breaks to drink water and rest in the shade. Try to schedule spray work to avoid hottest times of the day.</p> <p>Read and discuss label and carefully follow any restrictions on weather conditions such as temperature.</p> <p>When spraying in a light breeze, conduct the application so the wind carries the herbicide away from the applicator and any non-target plants or animals. Drift can be mitigated by reducing spray pressure or adding a drift retardant. If there is any doubt about the wind velocity being unsuitable for spraying, use an anemometer to measure wind speed. Applications must be halted if wind gusts are consistently over 10 miles per hour. Also, little to no wind can mean an inversion is occurring. When applications are made under stable conditions there is little or no vertical air movement. Almost all air movement is lateral and concentrations of small spray droplets suspended in the layer of air near the ground can be carried long distances.</p> <p>Do not touch your face with gloves.</p> <p>Do not eat, drink, or smoke while spraying. Wash hands and face thoroughly before eating, drinking, smoking, or chewing gum.</p> <p>Do not wear herbicide soiled footwear into the office or home, and keep work footwear stored away from others.</p>			
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<p><b>Backpack</b></p>	<p>Loss of balance, accidental spray</p>	<p>Be aware of the shift in your center of gravity due to the load of the backpack sprayer.</p> <p>Watch your footing, move slowly, and take your time.</p> <p>Move at a pace that will give you time to adjust if you encounter a hazard, or if you lose your balance.</p> <p>Keep wand pointed down when not spraying. Wedge hand between handle and trigger (Field King backpacks) or use the trigger locking mechanism (Solo backpacks) when traversing rough terrain to prevent accidental spraying.</p> <p>Avoid walking through treated areas.</p>		<p><b>D – Seldom</b></p>	<p><b>4 -- Low</b></p>
<p><b>Clean Up</b></p>	<p>Equipment and skin contamination with herbicide</p>	<p>Always follow label instructions.</p> <p>Empty backpacks must be triple rinsed <b>in the application area</b> at the end of each work day. To triple rinse fill backpack with water and spray contents, using the same procedures used for spraying herbicides, and empty the tank again. Repeat this procedure two more times, using at least one gallon of water during each rinse. During the third rinse, use sprayer until all herbicide has been spent from wand and hose. Make sure that the backpack has been depressurized and store wands so that any accidental spraying during transport will not hit passengers, food, or drink.</p> <p>Any backpacks that are not clean at the end of a work day must be labeled with the date, herbicides present, and concentration. Store and secure any backpacks containing herbicide in the upright position and place wands in herbicide bin with nozzle sealed to prevent accidental herbicide discharge into the work vehicle.</p> <p>Wash your hands as soon as possible.</p> <p>Wash clothing separate from the laundry.</p>	<p><b>III -- Marginal</b></p>	<p><b>D – Seldom</b></p>	<p><b>4 -- Low</b></p>

<b>Storage of Herbicides</b>	Herbicide contamination of food, feed, livestock.	Never store pesticides near food, feed, seed or animals.  Each type of herbicide should be grouped separately, with labels that can be clearly seen  Have absorbent materials (e.g. kitty litter) readily available at the storage site to help clean up any spills			
<b>Disposal of Herbicides</b>	Environmental contamination	Prevention of herbicide surplus is the best way to minimize disposal problems. Dispose of rinsed, empty containers according to the SDS.	<b>III -- Marginal</b>	<b>D – Seldom</b>	<b>4 -- Low</b>
10. LINE OFFICER SIGNATURE BCHW Safety Committee		11. Title BCHW Safety Committee	12. Date May 2020		