

Cotton Producers Facing the Worker Protection Standard



A Practical Approach

Volume 1, Number 4

SAMPLE LABELING

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), notification to workers, and restricted-entry interval. The requirements in this box apply to uses of this product that are within covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of __ hours. The REI is 72 hours in outdoor areas where average annual rainfall is less than 25 inches a year.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- coveralls over long-sleeved shirt and long pants
- chemical-resistant gloves, such as barrier laminate or viton
- chemical-resistant footwear plus socks
- protective eyewear
- chemical-resistant headgear

Notify workers of the application by warning them orally and by posting warning signs at entrances to treated areas.

*This Publication is Produced by
The Cotton Foundation in
Cooperation With EPA*



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Cotton Production: Late-Season

It is late-season for cotton production, with the use of postemergence herbicides ending, but insecticides and miticides are being used frequently. Loading, mixing and application of pesticides are common practices. Insecticides are now being applied for boll weevils, armyworm, bollworms, tobacco budworms, spider mites and other pests. *Biological insecticides* are also being used to aid in pesticide resistance management and reduce the risk of damage to beneficial insecticides, thus preserving better control of more difficult pests with insecticides.

Private agricultural crop advisors (consultants) and their scouts are aggressively monitoring cotton fields for insect pests and recommending control measures as needed. Bt cotton and refugia plots are requiring special attention in control recommendations and products used.

All of these activities relate to the Worker Protection Standard (WPS). Take this challenge, read this newsletter for tips and easier ways of implementing the WPS during the late-season pesticide use in cotton production.

Take a Minute and Consider Changes in the WPS

Time Saver Biological insecticides, such as Biocot XL, Condor XL, Design, Dipel ES, Javelin WG and MVP II are used for management of early generations of bollworms and tobacco budworms.

Good News! The restricted entry interval (REI), which was once designated as 12 hours, has been reduced to 4 hours for most biologicals and some herbicides. **Check the pesticide label of the product you plan to use to confirm this.** Why is this important? This will allow workers to enter cotton fields more quickly and will require decontamination supplies when workers are present for only 7 days (rather than 30) after expiration of the REI or application.

What You Should Know about Handlers

Since increased insect activity is often detected in cotton fields at this point in the season and handlers are more frequently loading, mixing and applying pesticides, think about the following easy steps in helping handlers be better protected and informed:

Quick Checklist

- Be sure your handlers are trained under the guidelines of the WPS and state laws. This must be done before beginning any handler tasks (ex. spraying).
- Be sure that the only people in the application area are properly trained and equipped pesticide handlers.
- Provide the handler with information from the pesticide labeling of the product to be used and make the pesticide labeling available when handling tasks are done. The

Quick Checklist (continued)

information should include the signal word, precautions, hazard statements, PPE requirements, first aid and other appropriate information.

Liability Protection

Check Out Your Equipment!

The equipment used for mixing, loading, transferring or applying pesticides needs to be in a safe condition and handlers must be trained and use proper PPE when repairing, cleaning or adjusting equipment. Check daily when in use for leaks, clogging, worn or damaged parts and repair before instructing handler to use the equipment.

Time Saving Tip

Before allowing anyone to repair, clean or adjust pesticide handling equipment, you should try to remove the pesticide residues. If it is not feasible and if someone other than your own trained handlers is working with the equipment, you should inform people that there are pesticide residues on your equipment, the potential for harm and the proper way to handle such equipment.

As a handler employer, you must make sure that handlers are.....provided with PPE according to the pesticide labeling of the product to be used, the PPE is worn during the entire handling task and the correct PPE is used.

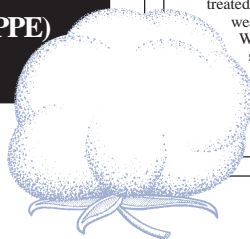


■ **Important!** The WPS requires the monitoring of handlers who are using pesticides with the signal words of “Danger-Poison” which has a “*skull and crossbones symbol*” on the label. This must be done every 2 hours by sight or by voice communication (Exception in Monitoring Requirements...even though fumigants are not used in production of cotton in field operations, fumigants have DANGER-POISON specified on their labels and they require continuous visual and voice monitoring of handlers under the WPS).

■ **Don't be Alarmed!** *It's not that difficult.* In most farming situations, producers are constantly contacting the handler by radio during the work period to find out their location, when they will be moving to the next field, if there is a problem with equipment, if more water will be needed for refilling spray tanks, location of other handlers and other contacts ... this is a normal farming day and guess what ... that is considered monitoring your handler.

Adapting to Personal Protective Equipment (PPE) The Why, Where, When & How of PPE

It's hot and humid during the summer season in the cotton production region of the U.S. and that can be



unpleasant and even dangerous (heat stress) when wearing PPE. Even though pesticides have been used for many years and pest control is essential, they can cause acute and/or chronic effects for users following exposure. The degree of injury may depend on the pesticide chemistry and other ingredients in the product, level of exposure, condition of the person exposed, period of time before decontamination, clothing and other factors.

■ **Why Should I have to Wear PPE or Force My Employees to Wear the PPE?**

First ... It's a good idea! As a cotton producer, you are in the business to make money and you cannot make money if your employees or you are unable to work due to pesticide injury ... Everybody loses!

Second ... medical treatment and short-term or long-term recovery from any type of injury can be very unpleasant.

Third ... The WPS, established by federal law along with state laws and pesticide labeling, legally requires protection against the risk of injury from pesticides for workers and handlers.

Fourth ... It's worth the effort and cost....It may require better planning of the time of day when applications are made, future modification of equipment, consideration of closed cab spray equipment (minimum PPE while inside of cab), more breaks for water consumption, specialized supplies to accompany PPE (ex. cool vests), pesticide choices and other approaches.

■ **Where Is the Required PPE Found?**

This is found on the pesticide label at two locations:
Applicators and Handlers:

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS DANGER

FATAL IF SWALLOWED Causes cholinesterase inhibition. May be fatal or harmful by skin or eye contact or by breathing dust. Rapidly absorbed through skin or eyes. Do not get on skin or in eyes. Do not breathe dust. Keep away from domestic animals. Always load up-wind from hopper when loading.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

Salivation, Muscle tremor, Nausea, Watery eyes, Difficult breathing, Vomiting, Pinpoint eye pupils, Excessive sweating, Diarrhea, Blurred vision, Abdominal cramps, Weakness, Headache.

In severe cases, convulsions, unconsciousness, and respiratory failure may occur.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear coveralls over short-sleeved shirts and short pants, waterproof gloves, chemical-resistant footwear plus socks, chemical-resistant headgear for overhead exposure, protective eyewear, chemical-resistant apron when cleaning equipment, mixing or loading and a dust/mist filtering respirator (MSHA/NIOSH – approval number prefix TC-21C). Follow manufacturer's instructions for cleaning/measuring PPE. Keep and wash PPE separately from other laundry. Wash contaminated clothing in strong washing soda solution and rinse thoroughly before reuse.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements noted in the Worker Protection Standard (WPS) for Agricultural Pesticides (40 CFR 170240(d) (4-6)), the handler PPE requirements may be reduced or modified as specified in the WPS.

Early Entry Workers:

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Read entire label before using this product.

This Supplemental Label must be in possession of the user at the time of pesticide application.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the Agency responsible for pesticide regulations.

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Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 48 hours.

Exception: If the product is soil-incorporated or soil-injected, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated. Once the REI has expired, do not allow persons to come into direct contact with treated soil wet as the result of the initial irrigation or rainfall after treatment unless they are wearing the PPE specified below for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water in coveralls over short-sleeved shirt and short pants, waterproof gloves, chemical-resistant footwear plus socks, protective eyewear and chemical-resistant headgear for overhead exposure.

Notify workers of the application by warning them orally and by posting warning signs at entrances to treated areas.

What Types of PPE Are Required?

The type and amount of PPE which must be worn by the handler and early entry worker are specified on each pesticide label. The amount of PPE varies considerably by product, but the insecticides generally require more PPE than other pesticides.

Heat Stress Tip Under extremely hot conditions during the summer months, and if the pesticide product choices for control of a particular insect pest or pest complex are about equal, why not look at the PPE requirements on each product and choose the one which requires the least PPE, therefore reducing heat stress of your handlers?

Labels of pesticide products used on cotton require different combinations of PPE. The following checklist may be helpful:

Quick Checklist of PPE with Definitions

- **Chemical resistant** - allows no measurable movement of a pesticide through the material during use
- **Waterproof** - allows no measurable movement of water (or water-based solutions) through the material during use
- **Coverall** - A loose fitting one- or two-piece garment that covers, at a minimum, the entire body except head, hands and feet
- **Gloves** - hand coverings that are the type listed on the pesticide label
- **Protective eyewear** - goggles, face shield or safety glasses with front, brow and temple protection
- **Chemical-resistant footwear** - chemical-resistant shoes; chemical resistant boots; or chemical-resistant shoe coverings over shoes or boots
- **Chemical-resistant headgear** - chemical-resistant hood or chemical-resistant hat with a wide brim
- **Chemical-resistant apron** - chemical-resistant apron that covers the front of the body from mid-chest to the knees
- **Chemical-resistant suit** - coverall (as defined above) made of chemical-resistant material
- **Respirator** - A device that protects the respiratory system. Must be of the type listed on the pesticide label and must be appropriate for the pesticide product being used and for the activity being performed.

How and Where to Maintain PPE

Locations where PPE is likely to be maintained:

(1) Shop or Equipment Maintenance Building:

Look at your building design and plan an area in the building (where no pesticides are stored or other chemicals) which is clean and dry and can be used for storage of PPE.

\$ Cost Savings Think about buying steel lockers (schools) or other containers with doors through salvage sales for PPE storage ... sometimes these can be purchased for under \$10 each.

Handlers and early entry workers will need a place to put on the PPE, take off the PPE following completion of the job and to store their personal clothing without pesticide contamination. Decontamination supplies and sufficient quality water to thoroughly wash following handling and early entry tasks are required. Plan a location for a container to deposit PPE which will require cleaning (follow the cleaning guidelines specified in the WPS regulation) and a container for disposal of PPE (comply with applicable federal, state, tribal and other regulations).

(2) Equipment (tractor, high-clearance sprayer, truck, other)

Purchase a chemical resistant container and store PPE in the container during handling or early entry tasks. The container should be maintained during the handling and early entry task on the equipment (tractor, spray coupe) or truck which is being used along with the decontamination supplies (protected in chemical resistant container).

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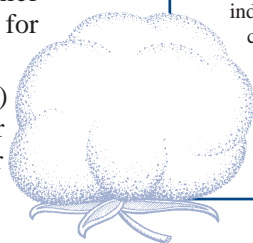
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QUICK PESTICIDE CHECK
Cotton Insecticides++

Product	EPA Number	Active Ingredient	Signal RUP	Word	Noti-REI	ification	PPE	Entry PPE	Early Use	Seasonal Company
Admire 2F	3125-422	imidacloprid	yes	caution	12+	oral	aeg	beg	I	Bayer
Ammo 2.5	279-3027	amprolium	yes	caution	12	oral	cfhjk	cfhjk	I	FMC
Ammo WSB	279-3084	cypermethrin	yes	warning	12	oral	aeg	beg	I	FMC
Asana XL	352-515	esfenvalerate	yes	warning	12	oral	afgj	bfjg	I	DuPont
Baythroid 2	3125-351	cyfluthrin	yes	danger	12	oral	afgj	bfjg	I	Bayer
Bolstar 6	3125-321	sulprofos	no	warning	24	oral,post	cfhklm	cfhl	I	Bayer
Capture 2 EC	279-3069	bifenthrin	yes	warning	12	oral	afgj	bfjg	I,M	FMC
Capture 2 EC	279-3114	bifenthrin	yes	warning	12+	oral	afgj	bfjg	I,M	FMC
Comite	400-104	propargite	no	danger	48+	oral,post	afgijklm	bfjgl	M	Uniroyal
Comite II	400-154	propargite	no	danger	48+	oral,post	afgijklm	bfjgl	M	Uniroyal
Curacron 8E	100-699	profenofos	yes	warning	48	oral,post	cfhjk	cfhj	I,M	Ciba
Cythion	5905-196	malathion	no	caution	12	oral,post	afgjl	bfjgl	I,M	Helena
Cythion 8E	5905-250	malathion	no	caution	12	oral	afg	bfjg	I,M	Helena
Dantrol 2.4 EC	59639-35	fenproprathrin	yes	danger	24	oral	afgj	bfjg	I,M	Valent
Design									I,B	Ciba
Di-Syston 15%G	3125-172	disulfoton	yes	danger-poison	48	oral,post	cehklm	cehl	I,M	Bayer
Di-Syston 8	3125-307	disulfoton	yes	danger-poison	48	oral,post	dfhjklm	dfhjl	I,M	Bayer
Dibrom 8 E	59639-15	naled	no	danger	24+	oral	dfhjklm	dfhjl	I,M	Valent
Dimethoate 400	34704-207	dimethoate	no	warning	48	oral	afhjl	bfhjl	I,M	UAP
Dimethoate 4EC	5905-493	dimethoate	no	warning	48	oral	afhjl	bfhjl	I,M	Helena
Dimethoate 5 lb.	5905-497-38167	dimethoate	no	danger	48	oral	afhjl	bfhjl	I	Helena
Dimilin 25W	37100-8-400	diflubenzuron	yes	caution	12	oral	ag	beg	IGR	Uniroyal
Dimilin 2L	400-461	diflubenzuron	yes	caution	12	oral	afg	bfjg	IGR	Uniroyal
Dipel 2X	275-37	BT	no	caution	4	oral	aeg	beg	I	Abbott
Dipel 48A	275-116	BT	no	caution	4	oral	aeg	beg	I,B	Abbott
Dipel 4L	275-36	BT	no	caution	4	oral	afg	bfjg	I	Abbott
Dipel DF	275-103	BT	no	caution	4	oral	aeg	beg	I,B	Abbott
Dipel ES	275-65	BT	no	caution	4	oral	afg	bfjg	I	Abbott
Dipel ES-NT	275-93	BT	no	caution	4	oral	afg	bfjg	I	Abbott
Furadan 4F	279-2876 ZC	carbofuran	yes	danger-poison	48+	oral,post	afgim	bfjg	I,N	FMC
Fury 1.5 EC	279-3125	zeta-cypermethrin	yes	warning	12	oral	afg	bfjg	I	FMC
Guthion 2L	3125-102	azinphos-methyl	yes	danger-poison	48	oral	fhjlmn	fhjln	I	Bayer
Guthion 3F	3125-338	azinphos-methyl	yes	danger-poison	48	oral	fhjlmn	fhjln	I	Bayer
Guthion Sol. 50% WP	3125-301	azinphos-methyl	yes	danger-poison	48	oral	ehjlmn	ehln	I	Bayer
Imidan 70-WSB	10163-184	phosmet	no	warning	24	oral	aeglm	aegl	I	Gowan
Javelin WG	55947-136	BT	no	caution	4	oral	aeg	beg	I,B	Sandoz
Karate	10182-96	lambda-cyhalothrin	yes	danger	24	oral	dfhjklm	dfhjl	I	Zeneca
Kelthane MF	707-202	dicofol	no	caution	12	oral	afg	bfjg	M	Rohm and Hass
Kumulus DF	7969-61	sulfur	no	caution	24	oral	aegj	begj	M	BASF
Lannate	352-342	methomyl	yes	danger-poison	48+	oral	aegj	begj	I	DuPont
Lannate LV	352-384	methomyl	yes	danger-poison	48+	oral	afgj	bfjg	I	DuPont
Larvin 3.2	264-379	thiodicarb	no	warning	12	oral	aegl	begl	I	Rhone-Poulenc
Legend	3125-351	cyfluthrin	yes	danger	12	oral	afgj	bfjg	I	Bayer
Liquid Surphur 6	5905-437	sulfur	no	caution	24	oral	aeg	beg	M	Helena
Lock-On	62719-79	chlorpyrifos	no	warning	12	oral	afgj	bfjg	I	DowElanco
Lorsban 4E	62719-220	chlorpyrifos	no	warning	24	oral	cfhjkl	cfhjl	I	DowElanco
Malathion 57EC	34704-108	malathion	no	caution	12	oral	afg	bfjg	I,M	UAP
Metasystox-R	10163-220	oxydemeton-methyl	yes	warning	48+	oral	dfhjklm	dfhl	I	Gowan
Methyl Parathion 4E	34704-10	methyl parathion	yes	danger-poison	48+	oral	dfhjklm	dfhjl	I,M	UAP
Methyl Parathion 4lb.	5905-55	methyl parathion	yes	danger-poison	48	oral,post	dfhjklm	dfhjl	I	Helena
Microthiol Special	4581-373	sulfur	no	caution	24	oral	aeg	beg	M	EH Atochem
Monitor 4	3125-280	methamidophos	yes	danger-poison	48	oral,post	cfhjklm	cfhjl	I	Bayer
Monitor 4 Spray	59639-56	methamidophos	yes	danger-poison	48+	oral,post	cfhjklm	cfhjl	I	Valent
Mustang 1.5 EW	279-3126	zeta-cypermethrin	yes	warning	12	oral	afgj	bfjg	I	FMC

++Check product labels for approval for use in California +REI may vary...refer to product label for detailed information +++Check product label for specific requirement. When label is silent on notification requirement, users may choose oral or posting.

- | | | | | |
|---------------|--|--------------------------------------|--|---|
| Seasonal Use: | I....Insecticide
M....Miticide
N....Nematicide
O....Other
SF...Soil Fumigant | Personal Protective Equipment (PPE): | a...Long-sleeved shirt and long pants
b...Coveralls
c...Coveralls over short sleeved shirt and short pants
d...Coveralls over long sleeved shirt and long pants
e...Waterproof gloves
f...Chemical resistant gloves
g...Shoes plus socks | h...Chemical resistant footwear plus socks
j...Protective eyewear
k...Chemical resistant apron when cleaning equipment, mixing or loading
l...Chemical resistant headgear for overhead exposure
m...Approved respirator
n...Chemical resistant protective suit |
|---------------|--|--------------------------------------|--|---|

Information presented in this table is for planning purposes only. Exclusive reliance must be placed on the pesticide label and labeling information, specifics in the WPS statement on the label and other information provided by the manufacturer.

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