

Pesticide Record Keeping Using the OnePlan PAR

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Introduction

The OnePlan Pesticide Application and Soil Fumigation Recordkeeping tool (PAR) is a secure and free online program developed by University of Idaho Extension for applicators of restricted-use pesticides. The program allows applicators to fulfill federal and state pesticide regulations covering pesticide application record keeping and includes requirements for the Worker Protection Standard (WPS) and soil fumigant applications. It also includes a tool that calculates the amount of products required for each application event.

The OnePlan PAR allows the user to:

- Map the farming operation
- Enter pesticide usage information
- Record restricted re-entry interval (REI) information
- Catalog personal protective equipment needs
- Enter applicator information
- Create the forms to meet the WPS central location posting requirements
- Create an application mix sheet
- Create a map with driving directions to the nearest medical facility
- Develop management plans for soil fumigant applications

This publication describes state and federal requirements that applicators can fulfill using the PAR and explains how to set up a PAR account and use the tool. The PAR user must have internet access.

Background

Pesticide Record Keeping

Federal pesticide laws require all private pesticide applicators to maintain a record of their restricted-use

pesticide (RUP) applications. Private applicators must record applications of RUPs within 14 days following the application and retain records for 2 years. Idaho's state pesticide law requires professional applicators to maintain records of all pesticide applications, both general use and RUP, for 3 years following the pesticide application. Pesticide dealers must maintain RUP distribution records for 3 years.

Pesticides are classified as RUP by the U.S. Environmental Protection Agency (EPA) according to the potential risk they pose to human health, water quality, beneficial organisms, and wildlife. Only fully trained, state-licensed pesticide applicators are permitted to use RUP products. However, there is one exception to this rule: Private applicators may allow an unlicensed, competent individual to make RUP applications under their direct supervision. Private applicator record keeping requirements cover:

- Brand or product name
- EPA registration number
- Location of the application
- Crop, commodity, stored product, or site treated
- Day, month, and year of the application
- Size of area treated (number of animals, bushels, linear feet, or acreage, for example)
- Total amount of pesticide applied
- Name and license number of the applicator

Professional applicators are required to keep the same records as private applicators plus the following additional items:

- Name and address of owner/operator for each property
- Dilution applied or rate of application
- Time of day

- Approximate wind direction and speed
- Full name of person recommending the pesticide application
- Worker protection information exchange, if required (date and time of contact, name of grower/operator contacted)

Pesticide dealers must keep the following records:

- Name and address of the person purchasing or receiving the RUP
- Certified applicator name, license number, and license expiration date for the person certified to use the RUP
- Brand name and EPA registration number for each RUP distributed
- Date of distribution
- Quantity and size of each RUP container and the total quantity of RUP distributed
- Dealer's name, address, and pesticide dealer license number

Maintaining detailed and accurate pesticide records also helps with the farm's management and operational plans. Record keeping helps the producer track pest problems, crop rotations, and the various classes of pesticides used on a field-by-field basis. Rotating pesticide classes on each field is a critical practice for avoiding pest resistance to the pesticides used.

Worker Protection Standard

The Worker Protection Standard (WPS) was developed to reduce employee risks from pesticide exposure. Any producer who employs nonfamily individuals in the production of agricultural plants in a nursery, greenhouse, forest, or farming operation must comply with the WPS requirements. The WPS applies to two types of employees, workers and pesticide handlers. Workers perform activities directly related to the production of agricultural plants on an agricultural establishment. Pesticide handlers may mix, load, apply, and dispose of pesticides. They may also be involved in flagging fields and cleaning any equipment used for pesticide applications.

Pesticide-specific requirements are on each pesticide label in the "Directions for Use" section and the "Agricultural Use Requirements" box, which includes information on the selection and use of personal protective equipment, restricted re-entry intervals, and field posting (figure 1). The producer is required to post pesticide application information in a visible central location. The "central posting" must contain information for workers on pesticide

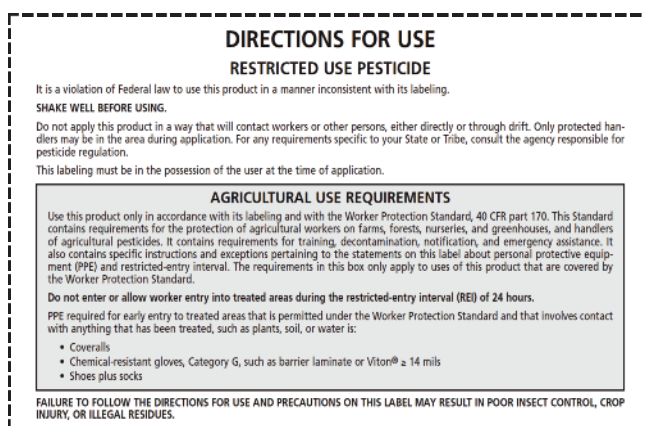


Figure 1. Pesticide-specific directions for WPS requirements are found in the pesticide label's "Directions for Use" section in the "Agricultural Use Requirements" box.

safety; maps of fields with dates and times of pesticide applications; the pesticide product name, common name, and EPA registration number; the restricted re-entry interval; and the nearest medical treatment facility information.

The employer must also provide a decontamination site for washing off pesticides and pesticide residues while handlers and workers are performing their tasks. The decontamination site must have water, soap, and single-use towels. The handler site must also have a clean change of clothes and emergency eye flush solution for pesticides that require protective eyewear.

Soil Fumigant Management Plans

U.S. EPA regulations classify all soil fumigant products as RUPs subject to federal record-keeping requirements. In addition, a soil fumigant management plan must be completed before the application occurs and updated or amended at the completion of the soil fumigant application. These plans are required by the U.S. EPA under regulations of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

Each active ingredient has unique requirements for the purposes of the soil fumigant management plan. These requirements are detailed on each pesticide product label.

The soil fumigant management plan requires the user to utilize Good Agricultural Practices (GAPs), which include performing applications only during favorable weather conditions, providing community outreach and signage based upon each individual application, and recording application procedures, as directed by the product label. The soil fumigant management plan requires product-specific handler training and respirator fit tests and completed records of these activities.

How to Use the OnePlan PAR

Note: To try the OnePlan PAR using a virtual farm, log on to www.oneplan.org/par and enter oneplan as the user name and password. Click on "Help/instructions" in the left-hand menu for an instruction manual.

Setup for the PAR Program

1. Account setup for new users

The PAR is hosted on a secure server. Pursuant to section 9-340D of the Idaho Code, "the information provided by those using the 'Idaho OnePlan' shall be deemed to be trade secrets, production records or other proprietary information and shall be kept confidential and shall be exempt from disclosure." The pesticide records are secure and cannot be accessed by the general public.

Account setup begins at the OnePlan PAR homepage, www.oneplan.org/par (figure 2), and requires the creation of a personalized user name and password. The user also fills in basic information about the operation such as address, telephone number, email, and pesticide license number. Additional pesticide applicators for the operation, including custom applicators and their license numbers and contact information, can be added at this time or later.

If soil fumigation will be part of the farming practice, all handlers of fumigation products working for the farm need to be added during account setup or before the fumigation application. The handler's name, a record of the training they have received for each specific soil fumigation task, and respirator information for each handler needs to be added. The PAR program will prompt the user for this information. New handlers can be added to the account at any time.

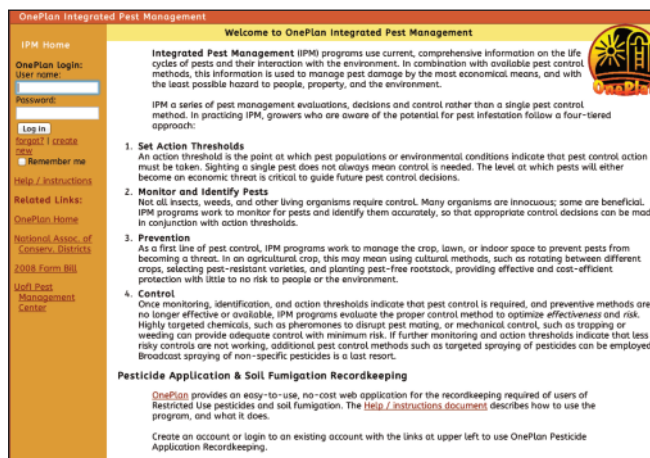


Figure 2. OnePlan PAR homepage (www.oneplan.org/PAR/). To create a new account, start by clicking on the "create new" link in the left-hand menu.

The nearest medical treatment facility must also be listed. This information will be used to generate the WPS "central posting" and safety information.

2. Farm Units

The next step in PAR account setup is to establish "farm units." A farm unit may contain all of the fields in the operation or any combination of fields for multiple farm units per operation. The initial organization of fields into farm units aids in the organization of pesticide applications and recordkeeping for diverse operations with widely distributed fields or multiple landowners.

PAR utilizes Google Maps, an embedded program function that uses zip code to locate the area for field mapping. The user finds and marks each field in the farm unit by clicking on the interactive map and filling in the acreage and field name windows. The field will be marked with a pin on the map provided in the program. This identification step should be completed for all farm fields; additional fields or entire farm units can be added at any time.

PAR uses the acreage information to generate all pesticide and spray mix calculations. The calculations provide total amounts of products needed for each application. Additionally, PAR generates a completed field map and pesticide application locations for the WPS "central posting."

The PAR "Operation Summary" page displays the information from the account setup and completed farm field mapping. It can be accessed by clicking on the "Operation summary" link in the left-hand menu (figure 3).

3. Field History

This section of the PAR is used to record what crops are planted by field number or name, as designated in the mapping section. It provides crop and pesticide

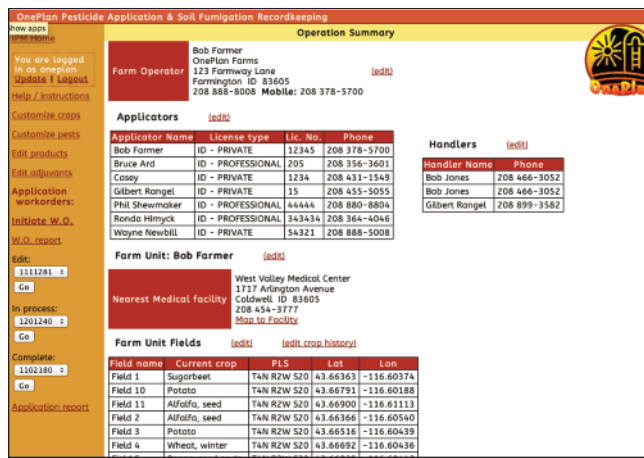


Figure 3. Example of the summary page displaying information from the account setup and field mapping (<http://www.oneplan.org/PAR/PARsummary.aspx>).

application records for as many years as the user chooses. The program includes a list of several hundred crops from which to choose; it is advisable to create a custom list of crops grown on the farm. The user may add unlisted crops to their custom list.

4. Pesticide and Label Information

The user enters current and specific information for each pesticide they plan to use. Additional pesticides can be added at any time.

It is critical that the user thoroughly read and understand each pesticide label before entering the following label information:

- Product or trade name
- Common name
- EPA registration number
- Manufacturer or company name
- WPS requirements as described in the “Agricultural Use Requirements” box found in the “Directions for Use” section of the label

It is the user’s legal responsibility to review and understand all of the pesticide label information to ensure accuracy before proceeding with the OnePlan PAR. Pesticides and uses in Idaho are regulated by the U.S. EPA and the Idaho State Department of Agriculture and it is a federal requirement for the user to read and follow all directions on the pesticide label. The PAR uses the information entered at this step to determine the soil fumigant and WPS “central posting” requirements.

Pesticide manufacturers are required by law to put certain information on a pesticide label. There are 17 sections to a pesticide label, providing information about the product, precautions and hazards, reentry to treated areas, storage and disposal, and directions for use. Pesticide labels are considered legal documents and are the main method to communicate information about the pesticide to the user. Before purchasing, mixing, or applying a pesticide be sure to read and fully understand the label instructions.

5. Pest List and Adjuvant List

These are the last two steps to complete PAR setup. A standard pest list is provided for the user to choose common pests found in their operation. The user can add pests to the list at this time or later.

The PAR also provides a small list of common adjuvants that can be selected and added to the user’s customized list. Additional adjuvants can be added at any time.

Recording Pesticide Applications

Once the setup process has been completed, the user is ready to initiate a “work order” (W.O.). The work order is used to describe and record the details of the planned, field-specific pesticide application. The user chooses the “Initiate W.O.” link from the menu on the left-hand side of the page then fills in information in a sequence of eight steps:

1. Scheduled start and finish dates and times and applicator name
2. Crop for which the application is scheduled
3. Field(s) for which the application is scheduled
4. Type of application (full coverage, band, or spot treatment) and formulation type (spray, dry, or soil fumigation)
5. Application equipment and settings
6. Pests targeted by the application
7. Pesticide products that will be applied
8. Adjuvants to be used for the application

Information added to the work order is saved as soon as it is entered. The “Review” button at the bottom of the page allows the user to review the information for accuracy after entering all of the required information. The “Issue” button at the bottom of the review page will email the work order to the applicator and others who have been specified. This form can be printed for use in mixing and loading operations and for the WPS central-posting-location requirements.

After the pesticide application is complete, the applicator must update the application record and document any differences between the planned work order and what actually happened in the field. This step enables the applicator to have a complete and accurate pesticide application record, including the actual time of the application and current weather conditions (figure 4). To record work order updates:

1. Select the numbered work order under “In process” in the left-hand menu on the operation summary page. Click “go.”
2. Review the work order for accuracy
3. Select the “Job summary” button on the bottom of the page to make any updates to the pesticide application record.
4. Delete the application by selecting the “rescind” button. This will notify the applicator of the cancellation.

OnePlan Pesticide Application & Soil Fumigation Recordkeeping
 Bob Farmer application workorder #1301240

Issued: Thu. January 24, 2013

Applicator: Bob Farmer
 ID - PRIVATE #12345
 OnePlan Farms
 123 Farmway Lane
 Farmington, ID 83605
 Phone: 208 888-8008
 Mobile: 208 378-5700
 Applicator email notice sent: Jan. 24, 2013 8:13 AM

Applicator signature: _____

Scheduled	Actual
Start date: Thu. January 24, 2013	
time: 6:00 AM	
Finish date: Thu. January 24, 2013	
time: 6:00 PM	

Do not re-enter until 12 hrs after actual finish


Crop: Alfalfa, seed
 No target pests specified.

Product name (Active ingredients)	EPA Reg. #	RU	Per acre	Total	Per 100 gal.	Per tank
Advise 2FL (imidacloprid)	1381-205		2.0 fl oz	2.45 pt	8.0 fl oz	1.0 pt

Total mix required: 489 gal
 Total number of loads required: 2.45

Product Mix Safety Information	
Oral notice required	
Signal Word: Caution	Personal Protective Equipment is chemical resistant, protective:
PPE - Mixing/loading: GHS	C - coveralls
PPE - Early re-entry: GCS	G - gloves, chemical resistant
Restricted Entry Interval (REI): 12 hrs	L - long-sleeve shirt, long pants
Pre-harvest Interval (PHI): Unknown	S - shoes, socks

Application Type and Equipment		Application Site Information	
Zone: Full coverage	Mode: Spray (liquid)	Wind speed:	Temperature:
Applicator Equipment:	Speed (mph): 5	Wind direction:	Rel. humidity:
Mix per acre (gal): 23.0	Tank capacity (gal): 200	Weather:	Soil condition:
Nozzles/settings:	Nozzle pressure (psi): 40	Application notes:	



Field #	Area	Area to treat	Applied	Area	Per Unit
1	Field 11	19.57	19.57	19.57	13.84000
	Totals	19.57	19.57	19.57	13.84000

Print | Rescind | Job summary | Copy

Figure 4. Example of an application work order from the OnePlan PAR.

Soil Fumigant Management Plans

Soil fumigants require additional record keeping for fumigant management plans and postapplication summaries. These requirements are part of the EPA's soil fumigant regulations and must be completed by the certified applicator. The PAR provides all required forms and activities.

When the user selects soil fumigation as the method of application in the work order section, the PAR directs the user into the soil fumigation portion of the program, creating the U.S. EPA-required fumigant management plan (FMP). In addition to providing the basic work order information, the user completes the

emergency response plan, assessment and documentation of soil and weather conditions, and a checklist of Good Agricultural Practices (GAPs). The issued work order for soil fumigation includes important handler information and weather parameters that must be evaluated and documented before the application can begin. A detailed list, by fumigant, is included in the PAR. Examples of parameters that need to be assessed and documented include soil temperature and moisture, weather forecasts, temperature inversions, and wind speed and direction.

During and immediately following the soil fumigant application, current weather conditions must be documented along with any air monitoring that was conducted during the soil fumigant application, any deviations from the original plan, and any complaints or incidents. Application sites must follow buffer zone and field posting requirements as described on the soil fumigant label. Buffer zone look-up tables are included in all soil fumigant labels. The required buffer zone size will depend on the application method, soil fumigant rates, field size, and soil temperature. All of this information is recorded in the PAR and will be used for the postapplication summary that is required by the soil fumigant application regulations.

The postapplication summary also requires the signature of the certified applicator who supervised the application. The PAR includes an electronic signature option, which is allowed by the U.S. EPA. Both the fumigant management plan and postapplication summary must be kept for 2 years by the certified applicator and owner.

Reporting

The PAR generates a variety of reports that can be used to fulfill federal and state law requirements in addition to pest management planning. Clicking on the "Application report" link at the bottom of the left-hand menu displays a table of completed application records. Records can be sorted by year, crop, pesticide, pesticide use classification, EPA registration number, farm unit, field, or applicator.

Clicking on the work order report link ("W.O. report") displays a table of all work orders for the operation. These can be sorted by date or work order number, both issued and completed.

The records and reports are permanently stored on the secure server and can be accessed at any time with the user name and password on a personal computer, a tablet, or a smart phone. The records can also be saved to a personal computer in Microsoft Excel format.

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