Use of a Survey as an Educational Tool for Recordkeeping

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Abstract

Washington State University conducted training sessions emphasizing pesticide applicator recordkeeping at fourteen different locations in 2002. The purpose was to measure knowledge of recordkeeping requirements before and after the training programs. The training included a self-reporting survey on recordkeeping, a fact sheet, a short presentation, and a post-training survey six months later. The survey measured applicator demographics, specific records kept, and measurement methodology. The pre- and post-training survey data were compared to assess the success of the educational emphasis. The findings show that most applicators had prior knowledge of state recordkeeping requirements, which exceed those required by the United States Department of Agriculture for private applicators. The survey also indicated an overall increase in recordkeeping knowledge after training. On those facets of recordkeeping that were less well known (specifically, use of weather measurement instrumentation and in-field placement of these tools), applicators would benefit from further education. In-class responses and discussion indicated the survey was a useful tool and an enjoyable way to discuss this material.

Keywords: pesticide, safety, education, recordkeeping, survey, tools

Introduction

Washington State Department of Agriculture (WSDA) requires that pesticide applicators keep application records. Recordkeeping is required for any certified applicator making any pesticide application and for any person making applications to more than one acre of agricultural land during one calendar year. The United States Department of Agriculture (USDA) requires any private pesticide applicator to keep a record of all restricted use pesticide applications. WSDA's requirements exceed those of USDA.

Pesticide application records are useful for many reasons. Quality records demonstrate applicator professionalism by illustrating safety, care, and concern (Gardisser 2000). They also serve as a tool to refresh memories for application procedures, timing, and precautions taken, which can lead to safer, better performance. Finally, recordkeeping is required by law. As legal documents, records are utilized in compliance efforts to re-create an application to assess due care and appropriateness. It is imperative that pesticide applicators, at a minimum, maintain the required items on their records. In addition, it can benefit applicators to keep detailed records beyond the requirements.

Training on applicator recordkeeping is a challenge. How can the information be presented in a manner that inspires applicators to keep better quality records, or at a minimum comply with state and federal laws? Washington State University designed a training emphasis around the topic of recordkeeping. The emphasis was conducted in three phases: 1) a pre-training survey, 2) a fact sheet and presentation, and 3) a post-training survey.

Data were collected and compared to the USDA and WSDA requirements. Qualitative measures were assessed on

how certain required information was collected in the field. Results from this study show the current status of recordkeeping by Washington pesticide applicators and areas for possible improvement. In addition, the study indicates whether the recordkeeping survey exercise was useful.

Materials and Methods

A fifteen-question survey was developed and used both as a pre-training baseline knowledge assessment and post-training evaluation tool (Figure 1). This survey collected information about 1) compliance with federal and state recordkeeping requirements, 2) qualitative aspects of how measurements are taken in the field, and 3) who recorded the information.

The pre-training survey was handed out during each of fourteen training programs across the state. Time was allocated during the training session for individuals to respond to each question. No reference materials were available to the audience when they filled out the pre-training survey. Talking among trainees was allowed during the survey session.

A two-page fact sheet (Figure 2) was distributed after the survey was collected in class. It contained information on each of the recordkeeping requirements, the troublesome areas, and resources for obtaining further information.

A short presentation was delivered after the collection of the survey and distribution of the fact sheet. The presentation discussed recordkeeping requirements, emphasizing areas where WSDA enforcement staff finds the most errors, omissions, and confusion.

The original pre-training survey sample was collected from 2,191 pesticide licensees. Data from a subset of 827 pre-training surveys were recorded (38% of the total responses). A total of 490 post-training surveys were mailed six months later to training course participants; 155 were returned for a response rate of 32%. Post-training survey responders were given one recertification credit if they filled out and returned a completed survey. Data from each post-training survey were recorded. Any pre- or post-training survey completed by a consultant or dealer was eliminated from the sample pool since these professionals are not “certified applicators” as defined by the Federal Insecticide, Fungicide, and Rodenticide Act. Thus, the final data that were analyzed included responses from only certified pesticide applicators: 733 pre-training surveys and 115 post-training surveys.

Results

The audience that attends Washington State University (WSU) pesticide recertification courses is diverse. Table 1 illustrates that audience composition was similar between the pre- and post-training surveys, which allowed meaningful comparisons between the recordkeeping datasets.

USDA requires that application records be kept for a period of two years; in Washington the period is seven years. WSU’s educational emphasis was not successful in increasing knowledge on this topic. The pre-training survey showed 87% knew the period was 7 years whereas the post-training survey showed 71%.

Table 1. Certification Diversity of Audience.

	Pre-Training Survey	Post-Training Survey
Certified applicator license types	96%	95%
Private applicators	19%	22%
Commercial applicator/operator	15%	15%
Public operator	54%	49%
Private-commercial applicator	8%	*9%*
Dealer & consultant license types	3%	5%

Additional or different education is necessary to reinforce learning about the required time period for keeping pesticide application records.

WSDA requires that application information be recorded within 24 hours; 94% (pre-training survey) and 97% (post-training survey) of applicators indicated compliance with this requirement. Applicators used various methods for recording the information. The more common methods (pre / post, respectively) were WSDA-approved form (40% / 46%), notebook/booklet (29% / 36%), and computer program (10% / 13%).

This survey assessed knowledge of all mandated USDA record items except day, month, year applied, and applicator license number; all USDA items are required by WSDA (Figure 3). Table 2 indicates that a high percentage of applicators know about the requirement to record the product name, applicator's name, and site treated. Since the survey did not determine whether applicators recorded location by a "yes or no" question but rather queried qualitatively about the type of location recorded, the true percentage of applicators recording location is unclear.

This study arbitrarily set eighty percent as the level at which knowledge improvement is needed: 1) if the findings are 79% or below, improvement is imperative and 2) if the findings are 80% or above, improvement is not as critical.

Table 2. Compliance with USDA Recordkeeping Requirements.

	Pre-Training Survey	Post-Training Survey
Brand or product name	94%	98%
Applicator name	90%	93%
Crop or site treated	87%	84%
Location of application	*	*
Street address or milepost	62%	55%
Township, range, section	30%	28%
By other method	31%	41%
Total amount applied**	74%	77%
EPA product registration number**	66%	76%
Size of area treated**	61%	68%

**Note:* *Not specifically asked, qualitative only as noted in italics*

***Note:* *Needs knowledge improvement*

Table 2 indicates three areas for which knowledge should be improved. More training is needed for 1) total amount applied, 2) EPA product registration number, and 3) size of the area treated. There was an increase in knowledge for each of these after the training session, but further improvement is needed. The percentage of applicators recording size of area may be uncharacteristically low since Washington allows applicators to record "spot treatment" in lieu of measuring the size of area treated. Thus, applicators mentioned verbally during the presentation discussions that they noted "do not record size of treated area" on the survey, because they record "spot treatment" instead; the survey did not capture this alternate record. No explanation arose during discussions to explain the decrease noted for crop or site treated.

Table 3 shows the responses for the recordkeeping items that are required by WSDA over and above those required by USDA. A high percentage of applicators understand the requirements to record the temperature, wind direction, wind velocity, and start time. Some applicators even acknowledged taking measurements more than once during the application.

Table 3. Compliance with Additional WSDA Recordkeeping Requirements.

	Pre-Training Survey	Post-Training Survey
Temperature	98%	98%
Wind direction	96%	97%
At beginning of application	62%	56%
Every hour during application	10%	7%
When wind shifts significantly	29%	43%
Wind velocity	96%	95%
At beginning of application	61%	61%
Every hour during application	8%	9%
When wind shifts significantly	27%	28%
Start time	80%	87%
Stop time*	65%	74%
Surfactant name*	67%	76%
Rate per acre (other measure)*	74%	77%
Concentration applied (lbs per gal spray)*	61%	69%

**Note:* *Needs knowledge improvement*

Table 3 also indicates four areas for knowledge improvement. Stop time and concentration applied were areas specifically targeted in both the presentation and fact sheet. WSDA has known both of these items to be compliance problems; applicators fail to record them.

Surfactant names were addressed in the presentation and also tend not to be recorded. Washington laws classify adjuvants, including surfactants, as pesticides; thus, recordkeeping for surfactant application is required by certified applicators. While the survey did not inquire as to the recording of

surfactant application rates, the fact that surfactant names tend not to be recorded strongly indicates that application rates are not recorded.

There is also room for improvement in knowing that rate per acre must be recorded, though WSDA did not indicate this as a compliance problem area.

While these four problem areas (stop time, concentration applied, surfactant name, and rate per acre) all require further improvement (i.e., percentage of compliance in post-training survey was still below 80%), it is worth nothing that some percentage improvement occurred in each area following the educational presentation.

Other items from the qualitative portion of the survey indicated how applicators measured temperature, wind direction, and wind speed. Accurate in-field measurements are a problem (Gardisser 2000). This was evidenced in both the pre- and post-training surveys. WSDA's recordkeeping instructions stipulated only that wind velocity be measured in miles per hour, feet per second, or another appropriate measurement. Some applicators use poor quality instruments or techniques for assessing in-field conditions. Applicators need training in measurement instrumentation and technique.

Table 4 characterizes how applicators report they measure temperature. About half the applicators use an appropriate instrument; the assumption is that use is in the field. The other half use an estimate that does not allow for changes in topography and macroclimate. Some pesticides are sensitive to cold and warmth and a difference of a few degrees can alter efficacy. Educators need to provide training on where instruments should be placed to measure temperature. Applicators need to take temperature readings in appropriate field/site locations.

Table 4. How Temperature is Measured.

	Pre-Training Survey	Post-Training Survey
Thermometer/anemometer	53%	54%
Local weather station or Web site	23%	31%
Best estimate	19%	8%
Other	3%	5%
Do not measure	2%	2%

Table 5 characterizes how wind velocity is measured. The majority of applicators claim they use miles per hour (mph) or equivalent measures; however, only 20% actually use an appropriate instrument such as a wind meter in the field for assessment. In Washington, rules require that wind velocity be recorded in mph, feet per second, or any other appropriate measurement; use of descriptive words or phrases is noncompliant. Further questions need to be answered regarding the usefulness of best

estimate and the use of generic methods such as local weather sources and flag or dust movement that do not accurately measure field conditions. Educators need to provide training to applicators regarding appropriate instruments and their proper use.

Table 5. Wind Velocity Measurements.

	Pre-Training Survey	Post-Training Survey
Measurement		
Write in mph or feet per second	62%	67%
Use words: calm, gusty, variable	38%	33%
Instrument		
Best estimate	40%	34%
Wind meter or anemometer	20%	19%
Local weather station, radio or TV	16%	19%
Observe flag movement on flag pole	7%	13%
Internet weather Web site	6%	4%
Other	6%	6%

Table 6 characterizes how wind direction is measured. The majority of applicators use generic directional descriptions. Though acceptable by WSDA, this allows for a wide margin of wind shift. How many degrees on a compass fall within "south?" The full 180° between 90° and 270°? For sensitive sites that are located downwind of an application, generic measures do not provide adequate information. A compass reading provides more exact measurement; however, very few applicators indicated that they used a compass. Again, educators need to provide training in both instrumentation and in-field location for quality measurements.

Table 6. Wind Direction Measurements.

	Pre-Training Survey	Post-Training Survey
Measurement		
General direction (S, SSW, ESE, W)	94%	97%
Compass reading (172˚)	6%	3%
Instrument		
Best estimate	44%	36%
Local weather, radio, TV, web site	15%	21%
Flag or flagging tape	13%	14%
Dust and best estimate	9%	12%
Compass	5%	3%
Other	10%	11%
Do not measure	4%	3%

The survey also assessed whether applicators were typically recording information that would add to the quality of their records. It has been shown that with better records, 1) applicators remember more of what took place during that application, 2) applicators obtain information that may be useful to make future decisions, and 3) compliance officers have better information to review what took place with a particular application (Gardisser 2000). Table 7 shows that the educational emphasis had little effect on applicators keeping records that are not specifically required by law.

Table 7. Non-required Recordkeeping Items.

	Pre-Training Survey	Post-Training Survey
Target pest	54%	63%
Nozzle size	14%	11%
Spray pressure	22%	14%

It was apparent from the survey that few applicators record information not required by USDA or WSDA. However, information such as nozzle size, pressure, or spray quality would be very important in determining appropriate equipment set-up based on label requirements and state regulations and would be useful to applicators in post-treatment evaluations. On average, 30% of those surveyed responded that additional recordkeeping entries would cause an undue burden. The same response rate for undue burden was given for a requirement to measure wind direction and velocity using appropriate equipment. However, with appropriate training for applicators on the importance and future utility of capturing additional information, applicators may choose to record items in addition to those required by USDA or WSDA.

Discussion

Using the survey as an education tool was well received by the course participants. The tool was interactive while the participants filled out the survey since they were allowed to share information among course attendees. Watching the audiences' reactions and neighborly discussion, it was apparent to the instructor that the audience appreciated a different approach to delivering recordkeeping information. In the lecture segment following, attendees were willing to share with the instructor and the group some of their findings and concerns.

These data strongly indicate that the survey tool could be used to both assess participants' baseline knowledge as well as to increase their knowledge about the legal requirements related to recordkeeping when accompanied by a fact sheet and training lecture. For eleven of the fourteen quantifiable WSDA recordkeeping requirements, an increase in knowledge was found on the post-training survey. For one item there was no change and for two there were reductions. In the seven areas where compliance was indicated at below 80% on the pre-training survey, the post-training survey showed an average increase of seven percentage points

(pre-training survey average = 67%; post-training survey average = 74%). For those areas of low compliance noted in the post-training survey, further improvement is indicated.

From this data and the training exercise, we would recommend using a survey tool as a segment of a training program. Applicators enjoy the change in format and gain knowledge on areas typically categorized as "dry" topics.

As educators, we must continue our vigilance and conduct future educational efforts to further increase the applicator's understanding of recordkeeping requirements and the benefits of recordkeeping.

As a follow-up to this study and training emphasis, a second training session was conducted at one-third of the 2003 recertification courses to discuss the study's findings with applicators. This, too, was well received and provided yet another opportunity to review the problem areas in recordkeeping.

Conclusions

Applicators know about and understand recordkeeping regulations in general, but there are areas of confusion and omission as noted by WSDA compliance and indicated by the results of our surveys. Further education efforts need to be made so that applicators understand exactly what is required. Furthermore, additional training on climate measurement methods is needed, as is education on why quality records are important to the applicator.

This study also provided insight into areas where regulatory agencies could make changes to obtain better information.

- If applicators consistently fail to record the information for particular items, the federal and state regulatory agency could modify their requirements to capture an item that is more easily recorded. For example, make the misunderstood item two entries instead of one. If "application concentration rate" (amount product per amount diluent) is the desired information, require the applicator to record 1) total amount of product used per tankload and 2) total amount of water (diluent) used per same tankload.

- Few applicators remember that, in Washington, adjuvants are legally classified as pesticides, therefore subject to recordkeeping requirements. Since adjuvants (e.g., surfactants) must be recorded in Washington, re-title the recordkeeping form "Pesticide and Adjuvant Recordkeeping Form." Entries on the record form should also prompt the applicator to record both pesticides and adjuvants.

- To increase compliance with recording the EPA registration number, EPA could make the EPA registration number larger on the label, and possibly add a note to "record this number on your application records." At a minimum, this could be done for restricted-use products.

Since the time this study was conducted, the Washington State Department of Agriculture has made changes to their recordkeeping rules and forms toward resolving confusion and improving accuracy. At the time of the survey exercises, WSDA recordkeeping regulations did not stipulate when, where, or how temperature and wind measurements were to be made; they do today. This information and their revised recordkeeping forms will be included in the 2004 recertification training events.

The data clearly show that most applicators do not take the extra time necessary to determine quality climate measurements. Few training programs and training resources target this area. Regulators and educators should make this a priority, developing protocols and providing lists of available instruments to assist applicators in measuring pre-application field conditions and recording quality records. Educators not versed in this area need to find the time to learn more about in-field climate measurements so they can incorporate their knowledge and understanding in applicator resources and training programs. (The 2003 North American Applicator Certification and Safety Education Workshop included a presentation by Robert Wolf, Kansas State University, on weather instrumentation and readings. This presentation provided information and tools that can be utilized by instructors for future trainings. See http://www.bae.ksu.edu/rewolf/default.html .) WSU plans to train applicators on this topic during the 2004 recertification training events.

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References

Gardisser, D.R. 2000. Drift and Its Legal Implications. Proceedings of the Pesticide Spray Drift Educator's Conference. Kansas City, MO. [CD version].

Wolf, R.E. and R. Bellinger. 2003. Weather and Instrumentation. Proceedings of the North American Pesticide Applicator Certification and Safety Education Workshop. Honolulu, HI. US Environmental Protection Agency.

Figure 1. 2002 Washington State University Pesticide Recertification --- Recordkeeping Survey.

_____**Location**

2002 Washington State University Pesticide Recertification ••• Recordkeeping Survey

1. Do you make pesticide applications?
   ___a. Yes ___b. No (if not, stop here)

2. What type of license do you hold? (check all that apply)
   ___c. Private Applicator ___f. Private/Commercial Applicator
   ___d. Commercial Applicator/Operator ___g. Dealer
   ___e. Public Operator ___h. OTHER_____

3. Who actually records your application records into a permanent file?
   ___i. I do
   ___j. Someone else (please identify, such as supervisor)_____
   ___k. I do, then they are transferred in the main office
   ___l. OTHER_____

4. For which pesticide application do you keep records? (check all that apply)
   ___m. any and all applications ___o. only applications of "restricted use products"
   ___n. some applications only ___p. OTHER_____

5. How many years must you keep permanent application records in Washington?
   ____ write in the number of years you must keep records (q.)

6. How soon after the application is the information permanently recorded?
   ___r. Less than 30 minutes ___u. 8 hours to 24 hours
   ___s. 30 minutes to 2 hours ___v. Greater than 24 hours
   ___t. 2 hours to 8 hours

7. What method do you use to store your records?
   ___w. note cards ___aa. WSDA approved form
   ___x. booklet ___ab. form provided by dealer
   ___y. notebook ___ac. computer program
   ___z. consultant's recommendation form ___ad. OTHER_____

8. How do you measure wind speed?
   ___ae. do not measure ___aj. local radio or tv station
   ___af. best estimate ___ak. stop watch, markers, and dust
   ___ag. wind meter (brand)_____ ___al. observe flag movement on flag pole
   ___ah. anemometer (brand)_____ ___am. internet weather web site
   ___ai. local weather station ___an. other_____

9. What measure do you use for wind speed?
   ___ao. use words: calm, gusty, variable ___ap. in miles per hour or feet per second

10. What measure do you use for wind direction?
   ___aq. general direction (S, SSW, ESE, W) ___ar. compass reading (172˚)

11. How do you measure wind direction?

___as. do not measure
___at. best estimate
___au. compass
___av. smoke and compass
___aw smoke only
___ax. dust and compass
___av2. dust and best estimate
___aw2. local weather station
___ax2. local radio or tv station
___ay. internet weather web site
___az. flag or flagging tape
___ba. other_____

12. How do you measure temperature?

___bb. do not measure
___bc. best estimate
___bd. thermometer/anemometer
___be local weather station
___bf. internet weather web site
___bg. other_____

13. What items do you record? (check all that apply)

___bh. applications start times
___bj. application stop times
___bk. surfactant names
___bl. surfactant amount
___bm. nozzle size
___bn. spray pressure
___bo. target site
___bp. target pest
___bq. product name
___br. product active ingredient
___bs. product epa registration number
___bt. container size

___bu. person's name who made the application
___bv. physical location by street address or milepost
___bw. physical location by township, range, section
___bx. physical location by other method_____
___by. wind speed, once during the application
___bz. wind speed, every hour during the application
___ca. wind speed, when it makes a significant change
___cb. wind direction, at the beginning of the application
___cc. wind direction, every hour during the application
___cd. wind direction, when it makes a significant change
___ce. amount of water in tank when mixed
___cf. amount of pesticide in tank when mixed
___cg. amount of total product and water per tank (3 lbs product per 300 gallons water)
___ch. spray delivery rate of sprayer (gpa)
___cj. total amount of pesticide applied to site
___ck. total area treated (acres, sq.ft.) with application
___cl. other items_____

14. Mark the following items that *would add a significant burden*, if you were required to record them in addition to the current federal and state requirements?

___cm. wind speed measurement by anemometer
___cn. wind direction measurement by compass
___co. nozzle type and size
___cp. spray pressure
___cq. application height above the target
___cr. brief description of what lies in the downwind path for 1/2 mile?

15. ANY general comments you would like to share regarding current recordkeeping requirements or methods:

Figure 2. Washington Pesticide (and Adjuvant) Application Recordkeeping.

Washington Pesticide (and Adjuvant) Application Recordkeeping

RCW 17.21.100 and WAC 16.228.1320

Who Must Keep Pesticide Application Records

(1) All licensed applicators and operators who apply pesticides

(2) All persons applying pesticides to more than one acre of agricultural land in a calendar year

(3) Public entities engaged in roadside spraying of pesticides

(4) Unlicensed pesticide users are required to maintain records when performing landscape applications to sites including, but not limited to, schools, day cares, apartment complexes, shopping centers, golf courses, and parks

Recordkeeping for Pesticides (which includes all tank-mixed surfactants)

(1) **Name** and **address** for the person/agency for whom the pesticide was applied

(2) **Exact location** or **address** where the pesticide was applied

   i. Agriculture: Map (if more than one acre), township, range, & section,

   ii. Non agriculture: street address, mileposts, stretch of highway

(3) **Year, month, day** and **starting & ending times** of each pesticide application. If you are applying to the same area on the following day, that is a new application. Each customer has to be a new record.

(4) **Product name** (complete, full name) used on the registered label and the **US EPA registration number**, if applicable, of the pesticide which was applied

   i. Product name is the complete, full name on the label, i.e. Roundup Ultra, Roundup Pro, Rodeo, Roundup DRYpak, Roundup RTU. Do not use the active ingredient name (glyphosate) or an abbreviated product name (roundup)

(5) **Wind direction** (direction wind is blowing from (e.g., sw to w)), **wind velocity** (in mph), and **temperature** *during the application*; not applicable to baits in bait stations and structural applications

(6) **Total amount** of pesticide applied

(7) **Rate** of pesticide applied per acre or other appropriate measure

(8) **Concentration of pesticide** applied

   i. Specify the amount of product and the amount of diluent (3 pounds in 30 gallons), or

   ii. Percent product in the tank (2% solution), or

   iii. Gallon per acre delivery of the sprayer

(9) **Number of acres**, or other appropriate measure, to which the pesticide was applied

(10) **Crop or site** to which the pesticide was applied

(11) The **licensed applicator's name, address,** and **telephone number** and the **name of the individual(s) making the application** and **their license number(s)**, if applicable;

(12) For "general or structural pest control", the **target pest**

(13) For commercial application, the **apparatus license plate number**

(14) Any other reasonable information required by the director in rule

The required information shall be **recorded on the same day** that the pesticide is applied.

A commercial pesticide applicator who applies a pesticide to an agricultural crop or agricultural lands shall **provide a copy of the records to the owner** or to the lessee. However, the records do not need to be provided on a form adopted by WSDA.

Application records shall be maintained and preserved for **seven years**. This requires the commercial applicator to maintain records for all applications made by the commercial application company (by all the commercial operators).

Most Common Recordkeeping Errors Found by WSDA

- application "start" and "end" times – fail to record both
- wind speed – left blank. If wind is zero, record zero
- concentration – fail to record
- product name and US EPA registration number – fail to record, or do not record correct product name, but abbreviate name or active ingredient name
- square footage of an ornamental property – fail to record accurately because they record the total footage of the entire property, not just the area treated

Recordkeeping Format

Records may be kept in any format as long as the required information is included. WSDA may require that records be submitted on a prescribed form. Currently, there are five WSDA forms available with selection determined by the type of application and the applicator's preference. Forms can be found at:
http://www.wa.gov/agr/PestFert/Pesticides/ComplianceActivities.htm#Recordkeeping

- Pesticide Application Record (Version 1) -> Single application/1 location/1 applicator
- Pesticide Application Record (Version 2) -> Multiple applications/1 location/1 applicator
- Pesticide Application Record (Version 3) -> Multiple applications/l location/1+ applicator
- Pesticide Application Record (Version 4) -> Commercial Landscape Applications
- Pesticide Application Record (Version 5) -> Commercial Pest Control Operators

Who Can Access Your Application Records

Under state regulations, the following agencies and parties have the right to request and obtain pesticide application records.

- WSDA - for inspection or routine submission (same day as request.)
- Department of Health – upon request (72 hrs.)
- Treating health care personnel – upon request; must be made available immediately if required for treatment by phone, with a copy provided in 24 hrs.
- Pesticide incident reporting and tracking review panel – upon request (72 hrs.)
- Department of Labor and Industries – for industrial insurance claim (72 hrs.)
- Employee or employee's representative – for industrial insurance claim (72 hrs.)

Figure 3. Comparison of Recordkeeping Requirements.

Comparison of Recordkeeping Requirements

United States Dept. of Agriculture	**Washington State Dept. of Agriculture**
Any certified private applicator applying restricted-use pesticides	Any certified applicator making applications of any pesticide. Any non-certified applicator applying to greater than 1 agricultural acre per year
Recorded within 14 days of application	Recorded within 24 hours of application
Records kept for 2 years	Records kept for 7 years
Required Records	**Required Records**
Certified applicator's name	Certified applicator's name
Certification number	Certification number
Name of person who applied the pesticide	Name of person who applied the pesticide
Month, day, year of application	Month, day, year of application
Crop, commodity, site of application	Crop, commodity, site of application
Brand or product name	Brand or product name
EPA product registration number	EPA product registration number
Total product applied to total area treated	Total product applied to total area treated
Amount of pesticide applied per area	Amount of pesticide applied per area
Total area treated	Total area treated
Physical location of the application	Physical location of the application
None	Name of person for whom pesticide was applied
None	Start time, stop time
None	Surfactant name(s)
None	Total amount of surfactant applied
None	Wind speed during application
None	Wind direction during application
None	Air temperature during application
None	Concentration of amount of water and product per tank