

# **Development of a Pesticide Log: Design and Testing of a Three-Month Diary of Infrequent Behavior**

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# Survey Diaries

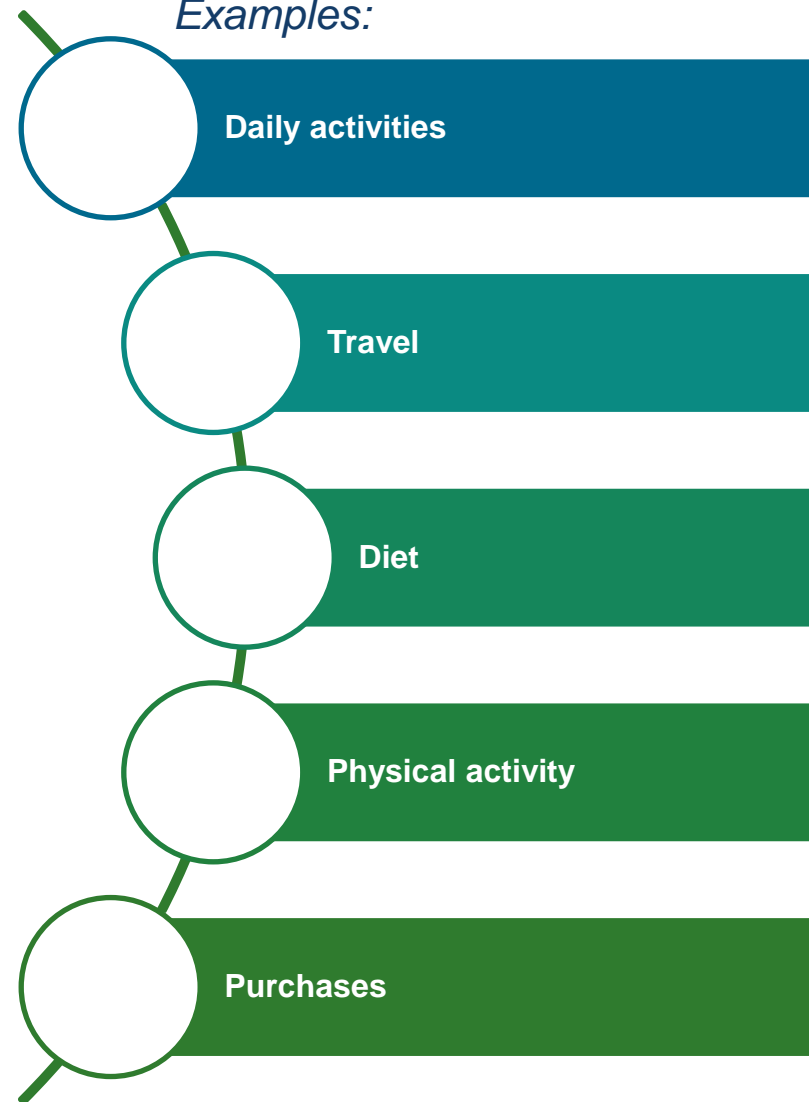
Survey diaries are a common tool for capturing detailed behavior over a period of time

(Dillman, Smyth, & Christian, 2009)

Respondents keep a detailed diary recording activities of interest

Diaries are a common means for government agencies to collect data on activities and expenditures

*Examples:*



# Literature on Survey Diaries

## Advantages

- Real-time data capture
- Potentially, more accurate data

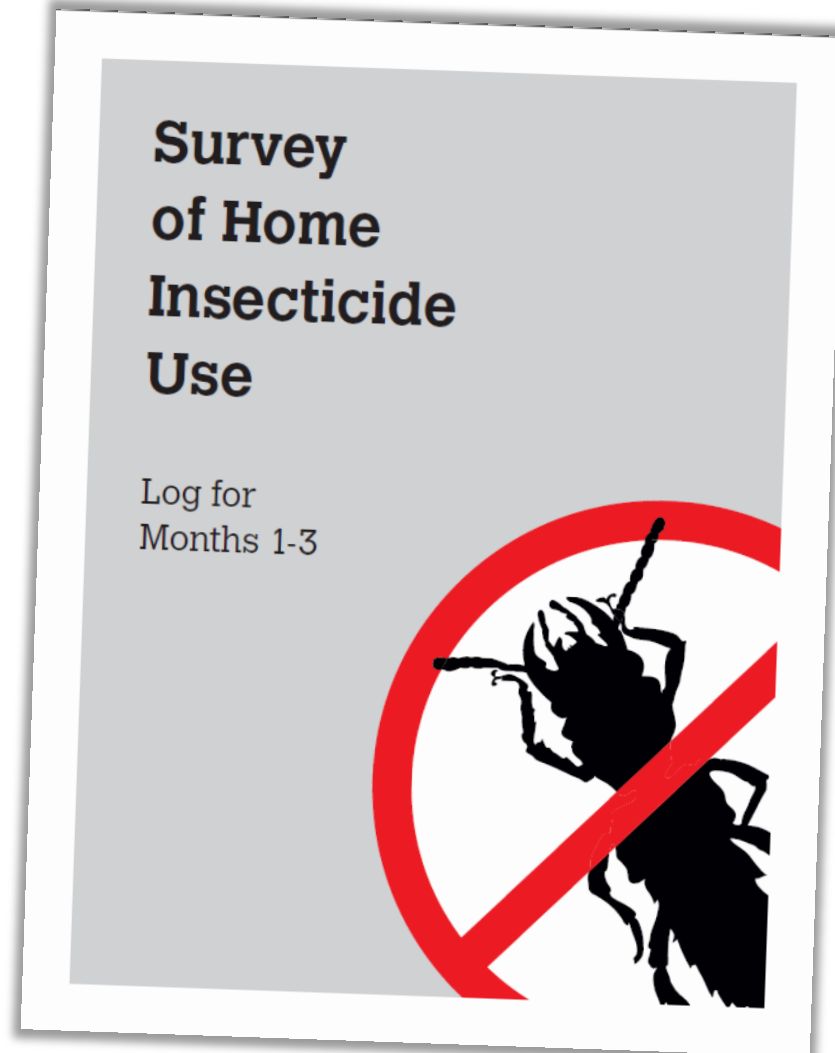
## Disadvantages

- Burden of reporting can lead to under-reporting of behaviors
- Completion may be postponed until the diary is due, and retrospective reporting often leads to over- or under-reporting

Gieseeman, 1987; Smith, Webb, & Heywood, 1994; Ogle, 2005

# Designing and Testing a Diary for a Pesticide Study

- Object of pilot study:  
capture household use of  
(and exposure to) pesticides  
in homes, lawns, and  
gardens
  - Included pesticides used on  
people and pets
  - Six-month study
  - Respondent task:  
complete two three-month  
logs to keep track of use of  
pesticides



# Data to be collected for each application

Full product  
name

(brand & product)

EPA Registration  
Number

Reason for  
application

Type of product  
(e.g., aerosol, candle, foam,  
fogger, shampoo, bait,  
flea collar)

Amount used  
(including ounces for  
products mixed from  
concentrate)

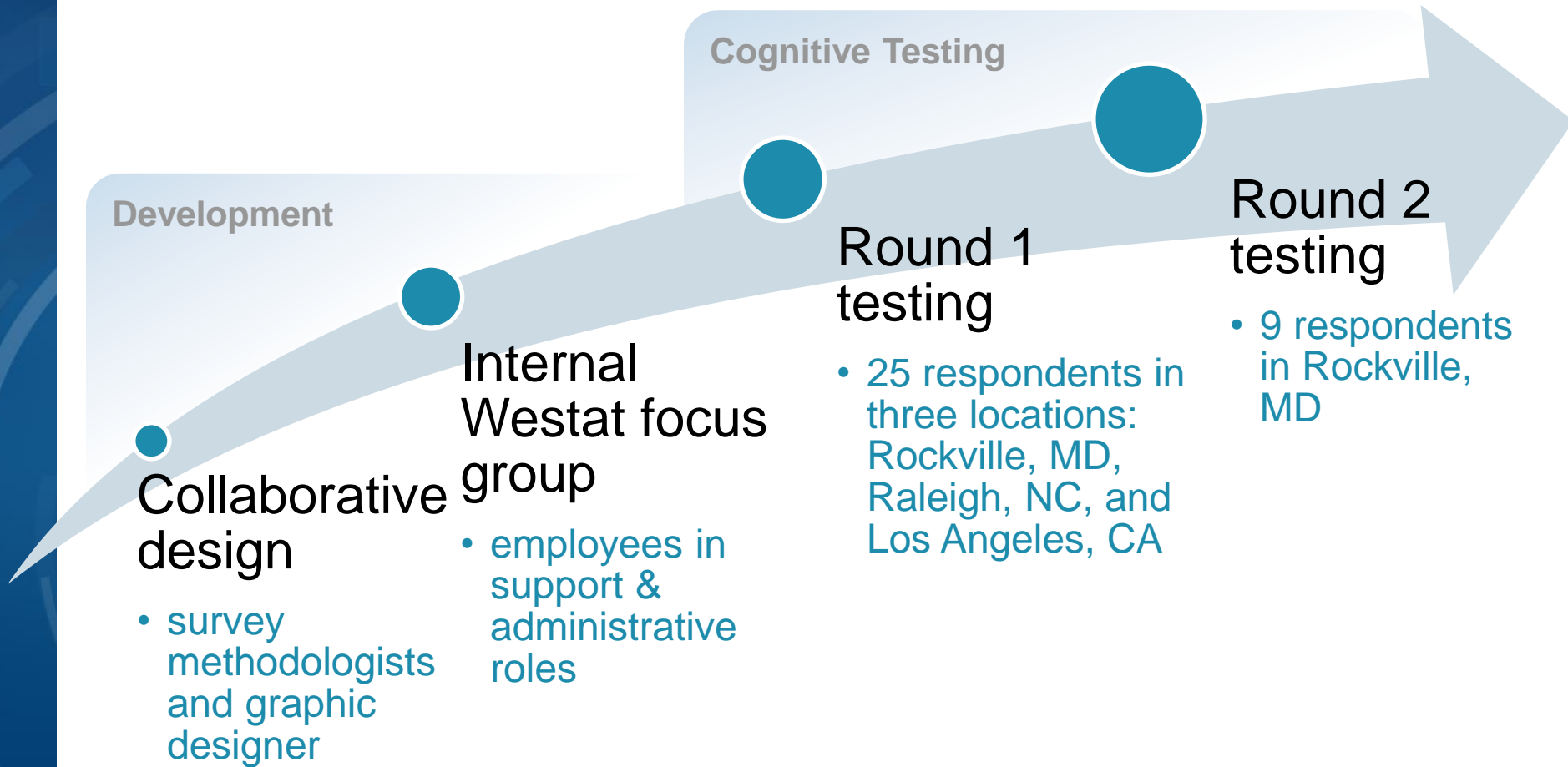
Date of  
application

Who applied it,  
(Including age & gender)

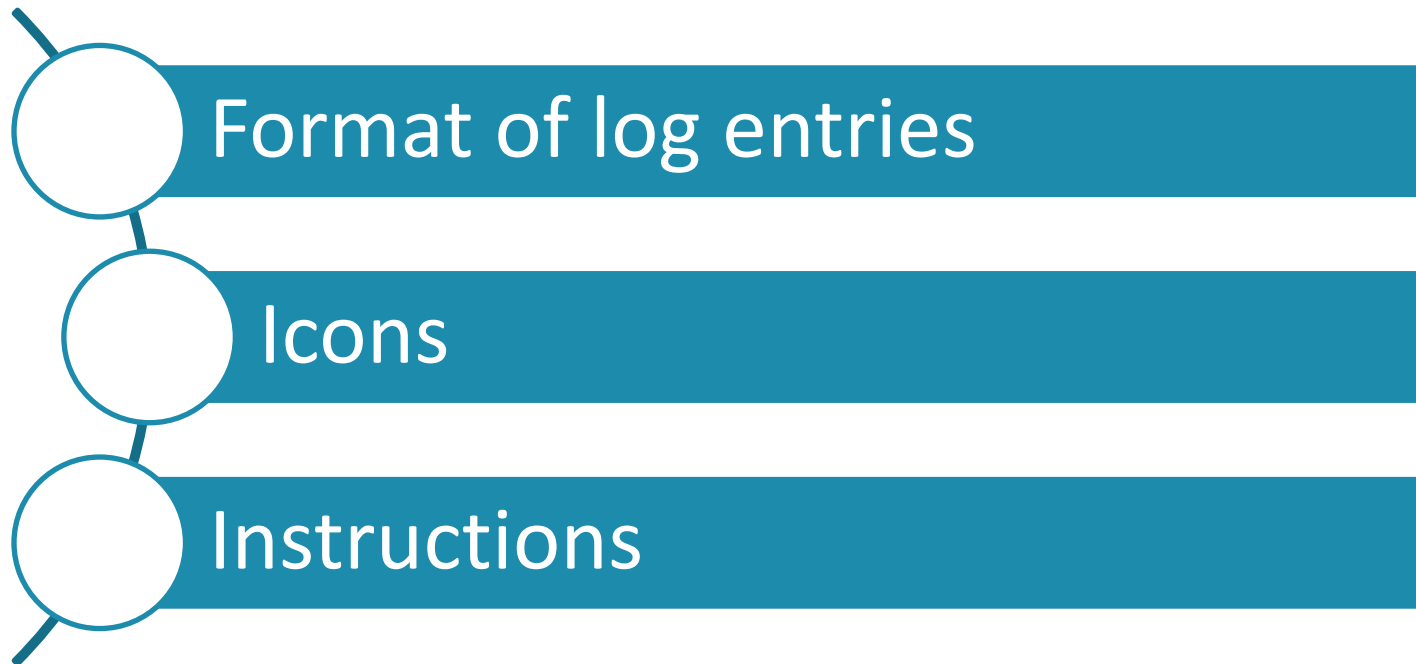
Where applied  
(including specific locations  
in and outside the home)

Safety  
precautions

# Development and Testing of the Log



Today's presentation will discuss our findings and revisions to three main components of the log:



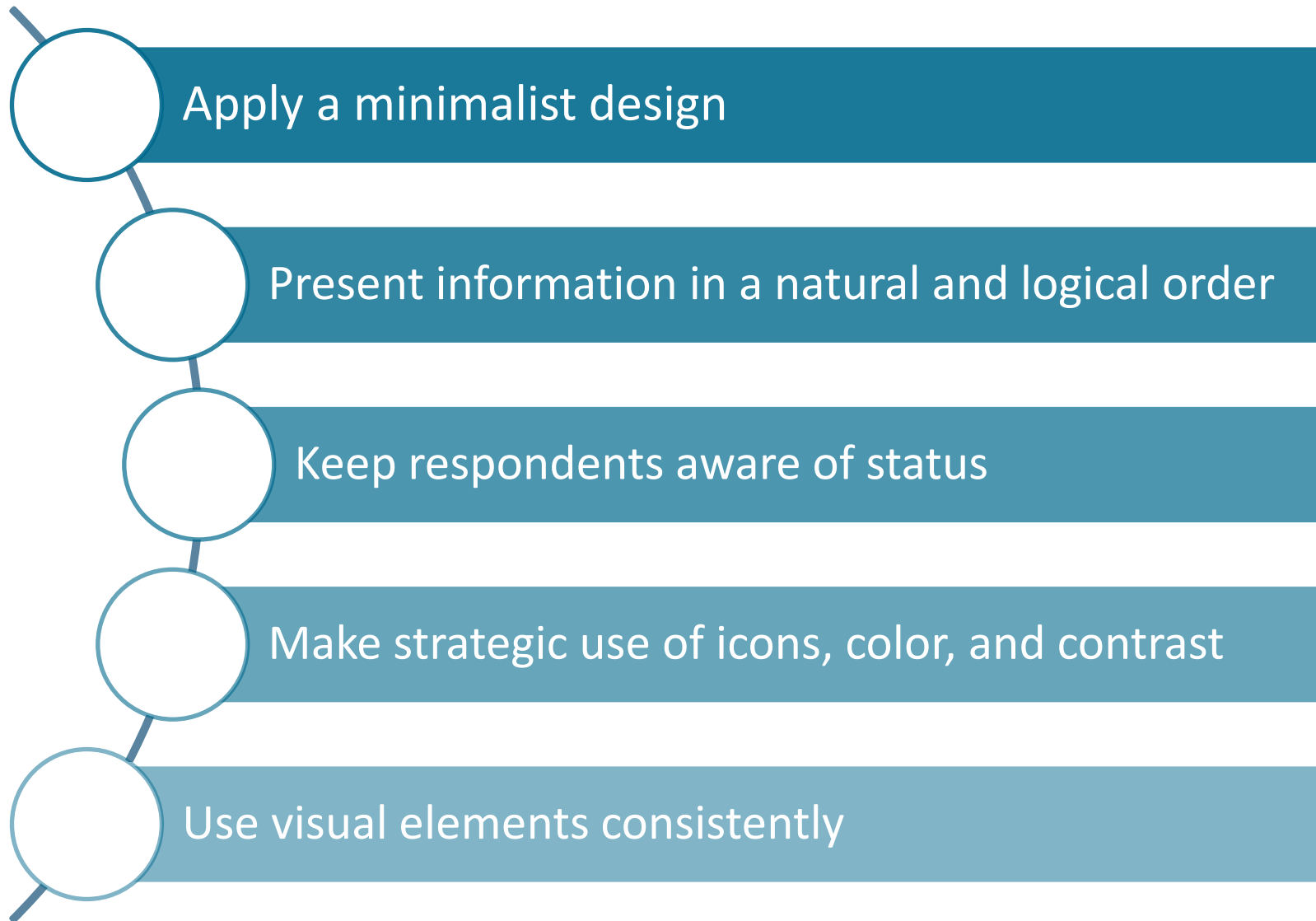
## **Format of Log Entries for each Application**

# Instrument Content— 6 pages per application

Next, we are interested in what form the product was in and how much was used.

| 11. Was the product ...  | 12. Amount Used  |
|--|--|
| <p>a. An aerosol can?</p> <p>Yes ..... 1 → <b>GO TO Q12a</b></p> <p>No ..... 2 → <b>GO TO Q11b</b></p> | <p>a. How many ounces was the container?</p> <p>Ounces:  __ __ </p> <p>a1. Thinking about a full container, how much spray was used?</p> <p>Spot treatment (small amount).... 1</p> <p>Half the container or less ..... 2</p> <p>More than half, but not all of the container ..... 3</p> <p>Entire container ..... 4</p> <p style="text-align: right;"><b>GO TO Q13</b></p>   |
| <p>b. A concentrate?</p> <p>Yes ..... 1 → <b>GO TO Q12b</b></p> <p>No ..... 2 → <b>GO TO Q11c</b></p>  | <p>b. Was the concentrate ... (Circle one)</p> <p>Powder ..... 1</p> <p>Liquid ..... 2</p> <p>Other ..... 3</p> <p>(Specify) _____</p> <p>b1. How many ounces of the <u>concentrate</u> were added to water or other liquid?</p> <p>Ounces:  __ __ __ </p> <p>b2. What was used to apply the product?</p> <p>Trigger or pump sprayer ..... 1</p> <p>Hose end sprayer ..... 2</p> <p>Something else? ..... 91</p> <p>(Specify) _____</p> <p style="text-align: right;"><b>GO TO Qb5</b></p> <p>b3. How much water or other liquid did you mix with the concentrate? (Indicate ounces or gallons)</p> <p>Ounces:  __ __ __ </p> <p>OR</p> <p>Gallons:  __ __ </p> <p style="text-align: right;"><b>GO TO Q13</b></p> |

# Design: Application of Usability Principles



# Initial Visual Design for Paper Log

Survey of Home Insecticide Use | 3-Month Log

## LOG ENTRY 1

Please fill out a new log entry for each and every time you use an insecticide.

### WHEN & WHAT

Date of Application

/ /

Full Product Name

EPA Reg. No.

☐ EPA Reg. No. not found

### WHO & WHY

Who applied it?

☐ Someone in the household

☐ Male

☐ Female

Age

☐ Professional or Landlord

Company Name

Telephone Number (  ) -  -

Reason for Application

### WHERE

Was the product used only on furniture or bedding?

☐ Yes  
☐ No

Was the product used only in cracks and crevices or on baseboards?

☐ Yes  
☐ No

Was the product used on a person, pet, or pet's bedding?

Check all that apply.

☐ Person  
☐ Pet  
☐ Pet's bedding

Check all that apply.

Inside Home

☐ Whole house  
☐ Attic  
☐ Unfinished basement  
☐ Bedroom  
☐ Bathroom  
☐ Other living area (family room, living room, finished basement)  
☐ Dining room/kitchen/pantry  
☐ Garage that is attached to your home  
☐ Other inside area (Specify)

Check all that apply.

Outside Home

☐ Perimeter of house such as crawl space/foundation  
☐ Patio/porch/deck  
☐ Lawn or grassy area  
☐ Vegetable garden  
☐ Flower garden  
☐ Garage or shed that is NOT attached to your home  
☐ Other outside area (Specify)

### HOW

When the product was applied, were any of the following worn? Check all that apply.

☐ Protective gloves  
☐ Protective glasses  
☐ Special clothing like coveralls  
☐ Dust Mask  
☐ None

Did the person applying the product wash their hands when they were done?

☐ Yes  
☐ No


How quickly after the product was used did you or others use the treated space or come into contact with the treated pet?

☐ Immediately  
☐ Less than one hour  
☐ One to 2 hours  
☐ Three to 4 hours  
☐ More than 4 hours  
☐ Used on a person

Survey of Home Insecticide Use | 3-Month Log

## LOG ENTRY 1


### TYPE OF PRODUCT | Choose 1

☐ Aerosol can 


Size of can (in ounces)

Amount used:

☐ Spot treatment (small amount)  
☐ Half the container or less  
☐ More than half, but not all of the container  
☐ Entire container

☐ Bait station, trap, or fly strip 


Number used

☐ Candles or coil 

Number used

Time used:

☐ Less than 1 hour  
☐ 1 to 2 hours  
☐ More than 2 hours

☐ Concentrate 

☐ Powder  
☐ Liquid  
☐ Other

Ounces of concentrate used

Amount of water mixed with concentrate ☐ Ounces  
☐ Gallons  
☐ Don't know


Amount of mixture used:

☐ Half the mixture or less  
☐ More than half, but not all  
☐ Entire mixture

Square feet covered

Method of applying:

☐ Trigger or pump sprayer  
☐ Hose end sprayer  
☐ Something else

☐ Foam or gel 

Size of container (in ounces)

Amount used:


☐ Spot treatment (small amount)  
☐ Half the container or less  
☐ More than half but not all  
☐ Entire container

☐ Fogger 

Size of container (in ounces)

Number of foggers used

Number of rooms treated

☐ Granules, dust, powder, or pellets 


Size of container (in ounces)

Amount used:

☐ Spot treatment (small amount)  
☐ Half the container or less  
☐ More than half but not all  
☐ Entire container

Method of applying:


☐ Handheld spreader  
☐ Walk behind or "push" spreader  
☐ Spread directly from container  
☐ Something else

☐ Non-aerosol sprayer or pump bottle 

Size of container (in ounces)

Amount used:

☐ Spot treatment (small amount)  
☐ Half the container or less  
☐ More than half but not all  
☐ Entire container

☐ Shampoo 

Size of container (in ounces)

Amount used:

☐ Spot treatment (small amount)  
☐ Half the container or less  
☐ More than half but not all  
☐ Entire container

☐ Spot-on drops for pets 

Size of container (in ounces)

☐ Flea collar for pet 

Number of pets with collars

☐ Something else (Specify)

Amount used

100001

4

60350

100001

5

60350

Please fill out a new log entry for each and every time you use an insecticide.

## WHEN & WHAT

Date of Application

/   /

Full Product Name \_\_\_\_\_

EPA Reg. No. \_\_\_\_\_

☐ EPA Reg. No. not found

## WHO & WHY

Who applied it?

☐ Someone in the household

☐ Male

☐ Female

Age \_\_\_\_\_

☐ Professional or Landlord

Company Name \_\_\_\_\_

Telephone Number ( \_\_\_\_ ) - \_\_\_\_ - \_\_\_\_

Reason for Application \_\_\_\_\_

## HOW

When the product was applied, were any of the following worn? **Check all that apply.**

- ☐ Protective gloves
- ☐ Protective glasses
- ☐ Special clothing like coveralls
- ☐ Dust Mask
- ☐ None

Did the person applying the product wash their hands when they were done?

- ☐ Yes
- ☐ No

How quickly after the product was used did you or others use the treated space or come into contact with the treated pet?

- ☐ Immediately
- ☐ Less than one hour
- ☐ One to 2 hours
- ☐ Three to 4 hours
- ☐ More than 4 hours
- ☐ Used on a person

## WHERE

Was the product used **only** on furniture or bedding?

**Check all that apply.**

**Check all that apply.**

☐ Female  
Age \_\_\_\_\_

☐ Professional or Landlord

Company Name \_\_\_\_\_

Telephone Number ( \_\_\_\_ ) - \_\_\_\_ - \_\_\_\_

Reason for Application \_\_\_\_\_

- ☐ Immediately  
☐ Less than one hour  
☐ One to 2 hours  
☐ Three to 4 hours  
☐ More than 4 hours  
☐ Used on a person

## WHERE

Was the product used only on furniture or bedding?

- ☐ Yes  
☐ No

Was the product used only in cracks and crevices or on baseboards?

- ☐ Yes  
☐ No

Was the product used on a person, pet, or pet's bedding?

**Check all that apply.**

- ☐ Person  
☐ Pet  
☐ Pet's bedding

**Check all that apply.**

### Inside Home

- ☐ Whole house  
☐ Attic  
☐ Unfinished basement  
☐ Bedroom  
☐ Bathroom  
☐ Other living area (family room, living room, finished basement)  
☐ Dining room/kitchen/pantry  
☐ Garage that is attached to your home  
☐ Other inside area (Specify)  
\_\_\_\_\_

**Check all that apply.**

### Outside Home

- ☐ Perimeter of house such as crawl space/foundation  
☐ Patio/porch/deck  
☐ Lawn or grassy area  
☐ Vegetable garden  
☐ Flower garden  
☐ Garage or shed that is NOT attached to your home  
☐ Other outside area (Specify)  
\_\_\_\_\_

## TYPE OF PRODUCT | Choose 1

☐ Aerosol can

Size of can (in ounces) \_\_\_\_\_

Amount used:

- ☐ Spot treatment (small amount)
- ☐ Half the container or less
- ☐ More than half, but not all of the container
- ☐ Entire container

☐ Bait station, trap, or fly strip

Number used \_\_\_\_\_

☐ Candles or coil

Number used \_\_\_\_\_

Time used:

- ☐ Less than 1 hour
- ☐ 1 to 2 hours
- ☐ More than 2 hours

☐ Concentrate

- ☐ Powder
- ☐ Liquid
- ☐ Other \_\_\_\_\_

Ounces of concentrate used \_\_\_\_\_

Amount of water mixed with concentrate ☐ Ounces ☐ Gallons

☐ Don't know

Amount of mixture used:

- ☐ Half the mixture or less
- ☐ More than half, but not all
- ☐ Entire mixture

Square feet covered \_\_\_\_\_

Method of applying:

- ☐ Trigger or pump sprayer
- ☐ Hose end sprayer

☐ Fogger

Size of container (in ounces) \_\_\_\_\_

Number of foggers used \_\_\_\_\_

Number of rooms treated \_\_\_\_\_

☐ Granules, dust, powder, or pellets

Size of container (in ounces) \_\_\_\_\_

Amount used:

- ☐ Spot treatment (small amount)
- ☐ Half the container or less
- ☐ More than half but not all
- ☐ Entire container

Method of applying:

- ☐ Handheld spreader
- ☐ Walk behind or "push" spreader
- ☐ Spread directly from container
- ☐ Something else \_\_\_\_\_

☐ Non-aerosol sprayer or pump bottle

Size of container (in ounces) \_\_\_\_\_

Amount used:

- ☐ Spot treatment (small amount)
- ☐ Half the container or less
- ☐ More than half but not all
- ☐ Entire container

☐ Shampoo

Size of container (in ounces) \_\_\_\_\_

Amount used:

- ☐ Spot treatment (small amount)
- ☐ Half the container or less
- ☐ More than half but not all
- ☐ Entire container

# Findings from Round 1 Testing

- The generic two-page format intended to apply to any type of insecticide didn't always work as intended.
- Respondent issues:
  - Reluctant to fill out a two-page entry for every single application of mosquito repellent
  - Difficulties answering some of the questions (e.g., where was it applied?) for pesticides applied to a person or pet

# Solution: Buckets

## What Do I Do?

For the next three months, fill out a log entry for each and every time you use an insecticide.

An insecticide is a product used to control insects.

Insecticides are used in homes, yards, gardens, as well as on pets and people.



### INCLUDE

- Sprays or bait to treat roaches, ants, or other bugs in your home
- Sprays, creams, lotions, or shampoos that you put on your body to prevent mosquito or other bug bites or to treat for lice
- "Dust" or other pesticides for flower or vegetable gardens
- Insecticide granules or powder applied to grass or lawns
- Sprays, powders, spot-on products, or collars to prevent or kill fleas or ticks on your pet



### DON'T INCLUDE

- Weed killers
- Rodent control
- Disinfectants



### IF YOU USE AN INSECTICIDE ON A PERSON

Go To Page 4



### IF YOU USE AN INSECTICIDE ON A PET

Go To Page 6



### IF YOU USE AN INSECTICIDE IN YOUR HOME OR YARD

Go to the Log Entries  
Beginning on Page 8

### What if someone else uses an insecticide in my home or yard?

If a professional, landscaper, or your landlord uses an insecticide in your home or yard, please report it. You can sometimes find information about the insecticide on a receipt or letter.

### What if I don't use any insecticides during

**Please also include any lice treatments.**

| Product 1                       |   | Product 2   |   |
|---------------------------------|---|---|---|
| <b>BRAND &amp; PRODUCT NAME</b> | _____   | _____   | _____   |
| <b>EPA REG. NO.</b>             | <div style="background-color: black; color: white; padding: 2px;">EPA<br/>REG.</div> <input type="checkbox"/> EPA Reg. No. unknown  | <div style="background-color: black; color: white; padding: 2px;">EPA<br/>REG.</div> <input type="checkbox"/> EPA Reg. No. unknown  | <div style="background-color: black; color: white; padding: 2px;">EPA<br/>REG.</div> <input type="checkbox"/> EPA Reg. No. unknown  |
| <b>WHO WAS IT USED ON?</b>      | <input type="checkbox"/> Male<br><input type="checkbox"/> Female Age _____<br><br><b>Did they apply it on themselves?</b><br><input type="checkbox"/> Yes<br><input type="checkbox"/> No<br><br><b>If NO, who applied it?</b><br><input type="checkbox"/> Male<br><input type="checkbox"/> Female Age _____ | <input type="checkbox"/> Male<br><input type="checkbox"/> Female Age _____<br><br><b>Did they apply it on themselves?</b><br><input type="checkbox"/> Yes<br><input type="checkbox"/> No<br><br><b>If NO, who applied it?</b><br><input type="checkbox"/> Male<br><input type="checkbox"/> Female Age _____ | <input type="checkbox"/> Male<br><input type="checkbox"/> Female Age _____<br><br><b>Did they apply it on themselves?</b><br><input type="checkbox"/> Yes<br><input type="checkbox"/> No<br><br><b>If NO, who applied it?</b><br><input type="checkbox"/> Male<br><input type="checkbox"/> Female Age _____ |
| <b>CHOOSE 1 TYPE OF PRODUCT</b> | <input type="checkbox"/> Aerosol can<br><input type="checkbox"/> Non-aerosol sprayer or pump bottle<br><input type="checkbox"/> Shampoo<br><input type="checkbox"/> Lotion or cream<br><input type="checkbox"/> Other (specify) _____   | <input type="checkbox"/> Aerosol can<br><input type="checkbox"/> Non-aerosol sprayer or pump bottle<br><input type="checkbox"/> Shampoo<br><input type="checkbox"/> Lotion or cream<br><input type="checkbox"/> Other (specify) _____   | <input type="checkbox"/> Aerosol can<br><input type="checkbox"/> Non-aerosol sprayer or pump bottle<br><input type="checkbox"/> Shampoo<br><input type="checkbox"/> Lotion or cream<br><input type="checkbox"/> Other (specify) _____   |
| <b>DATES USED</b>               | ____/____/____    ____/____/____<br>____/____/____    ____/____/____<br>____/____/____    ____/____/____<br>____/____/____    ____/____/____  | ____/____/____    ____/____/____<br>____/____/____    ____/____/____<br>____/____/____    ____/____/____<br>____/____/____    ____/____/____  | ____/____/____    ____/____/____<br>____/____/____    ____/____/____<br>____/____/____    ____/____/____<br>____/____/____    ____/____/____  |



Please fill out the information below for each insecticide used on a pet.

| Product 1                |   | Product 2   |                         |
|--------------------------|---|---|-------------------------|
| BRAND & PRODUCT NAME     | <div></div>   | <div></div>   | <div></div>             |
| EPA REG. NO.             | <div>EPA REG.</div> <div><input type="checkbox"/> EPA Reg. No. unknown</div>  | <div>EPA REG.</div> <div><input type="checkbox"/> EPA Reg. No. unknown</div>  | <div></div>             |
| WHO PUT IT ON THE PET?   | <input type="checkbox"/> Male<br><input type="checkbox"/> Female    Age <div></div>   | <input type="checkbox"/> Male<br><input type="checkbox"/> Female    Age <div></div>   | <div></div>             |
| CHOOSE 1 TYPE OF PRODUCT | <div><input type="checkbox"/> Spot-on drops <div></div></div> <div>Size of container (oz.) <div></div></div> <div><input type="checkbox"/> Flea collar <div></div></div> <div><input type="checkbox"/> Flea powder <div></div></div> <div>Size of container (oz.) <div></div></div> <div>Amount used:</div> <div><input type="checkbox"/> Spot treatment (small amount)</div> <div><input type="checkbox"/> Half the container or less</div> <div><input type="checkbox"/> More than half but not all</div> <div><input type="checkbox"/> Entire container</div> <div><input type="checkbox"/> Flea shampoo <div></div></div> <div>Size of container (oz.) <div></div></div> <div>Amount used:</div> <div><input type="checkbox"/> Spot treatment (small amount)</div> <div><input type="checkbox"/> Half the container or less</div> <div><input type="checkbox"/> More than half but not all</div> <div><input type="checkbox"/> Entire container</div> <div><input type="checkbox"/> Flea spray <div></div></div> <div>Size of container (oz.) <div></div></div> <div>Amount used:</div> <div><input type="checkbox"/> Spot treatment (small amount)</div> <div><input type="checkbox"/> Half the container or less</div> <div><input type="checkbox"/> More than half but not all</div> <div><input type="checkbox"/> Entire container</div> <div><input type="checkbox"/> Flea dip <div></div></div> <div>Method of applying:</div> <div><input type="checkbox"/> Cloth or sponge <div>oz. of dip</div></div> <div><input type="checkbox"/> Poured directly <div>oz. of water</div></div> <div><input type="checkbox"/> Spray <div>oz. of mixture used</div></div> <div><input type="checkbox"/> Other (specify) <div></div></div> | <div><input type="checkbox"/> Spot-on drops <div></div></div> <div>Size of container (oz.) <div></div></div> <div><input type="checkbox"/> Flea collar <div></div></div> <div><input type="checkbox"/> Flea powder <div></div></div> <div>Size of container (oz.) <div></div></div> <div>Amount used:</div> <div><input type="checkbox"/> Spot treatment (small amount)</div> <div><input type="checkbox"/> Half the container or less</div> <div><input type="checkbox"/> More than half but not all</div> <div><input type="checkbox"/> Entire container</div> <div><input type="checkbox"/> Flea shampoo <div></div></div> <div>Size of container (oz.) <div></div></div> <div>Amount used:</div> <div><input type="checkbox"/> Spot treatment (small amount)</div> <div><input type="checkbox"/> Half the container or less</div> <div><input type="checkbox"/> More than half but not all</div> <div><input type="checkbox"/> Entire container</div> <div><input type="checkbox"/> Flea spray <div></div></div> <div>Size of container (oz.) <div></div></div> <div>Amount used:</div> <div><input type="checkbox"/> Spot treatment (small amount)</div> <div><input type="checkbox"/> Half the container or less</div> <div><input type="checkbox"/> More than half but not all</div> <div><input type="checkbox"/> Entire container</div> <div><input type="checkbox"/> Flea dip <div></div></div> <div>Method of applying:</div> <div><input type="checkbox"/> Cloth or sponge <div>oz. of dip</div></div> <div><input type="checkbox"/> Poured directly <div>oz. of water</div></div> <div><input type="checkbox"/> Spray <div>oz. of mixture used</div></div> <div><input type="checkbox"/> Other (specify) <div></div></div> | <div></div>             |
| # OF PETS TREATED        | <div></div>   | <div></div>   | <div></div>             |
| DATES USED               | <div></div> <div></div>   | <div></div> <div></div>   | <div></div> <div></div> |

# Findings from Round 2 Testing

- Overall, buckets worked well.
- Respondent issues:
  - Difficult reporting a product used on more than one person
  - Unsure how to report when a product was used more than once a day (e.g., bug spray)

Product

1

BRAND &  
PRODUCT NAME

---



---

EPA REG. NO.

EPA  
REG
☐ EPA Reg. No. unknown
WHO WAS IT  
USED ON?
☐ Male  
☐ Female Age 

---

Did they apply it on themselves?

☐ Yes  
☐ No

If NO, who applied it?

☐ Male  
☐ Female Age 

---

CHOOSE 1  
TYPE OF PRODUCT
☐ Aerosol can  
☐ Non-aerosol sprayer or pump bottle  
☐ Shampoo  
☐ Lotion or cream  
☐ Other (specify)  


---

DATES USED

---

/\_\_\_\_/\_\_\_\_    

---

/\_\_\_\_/\_\_\_\_  


---

/\_\_\_\_/\_\_\_\_    

---

/\_\_\_\_/\_\_\_\_  


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/\_\_\_\_/\_\_\_\_    

---

/\_\_\_\_/\_\_\_\_  


---

/\_\_\_\_/\_\_\_\_    

---

/\_\_\_\_/\_\_\_\_

Product

1

BRAND &  
PRODUCT NAME

---



---

EPA REG. NO.

You can find the number  
in small print on the package.EPA  
REG
☐ EPA Reg. No. unknown
CHOOSE 1  
TYPE OF PRODUCT
☐ Aerosol can  
☐ Non-aerosol sprayer or pump bottle  
☐ Shampoo  
☐ Lotion or cream  
☐ Other (specify)  


---

WHO WAS IT  
USED ON?

Person 1

☐ Male Age 

---

  
☐ Female Total times used 

---

Person 2

☐ Male Age 

---

  
☐ Female Total times used 

---

Person 3

☐ Male Age 

---

  
☐ Female Total times used 

---

Person 4

☐ Male Age 

---

  
☐ Female Total times used 

---

Person 5

☐ Male Age 

---

  
☐ Female Total times used 

---

Person 6

☐ Male Age 

---

  
☐ Female Total times used 

---

# More Findings from Round 2 Testing

Respondents were unable to answer detailed questions about insecticides applied by professionals and landlords:

- True of both homeowners and renters
- Respondents often guessed at the product used or answered “Don’t know”

# Additional Bucket

## What Do I Do?

For the next three months, fill out a log entry for each and every time you use an insecticide.

An insecticide is a product used to control insects.

Insecticides are used in homes, yards, gardens, as well as on pets and people.



### INCLUDE

- Sprays or baits to treat roaches, ants, termites, or other bugs in your home
- Sprays, creams, lotions, or shampoos that you put on your body to prevent mosquito or other bug bites or to treat for lice
- "Dust" or other insecticides for flower or vegetable gardens
- Insecticide granules or powder applied to grass or lawns
- Sprays, powders, spot-on products, or collars to prevent or kill fleas or ticks on your pet



### DON'T INCLUDE

- Weed killers
- Products to control rodents such as mice, rats, or squirrels
- Disinfectants



### IF YOU USE AN INSECTICIDE ON A PERSON

Go to page 4



### IF YOU USE AN INSECTICIDE ON A PET

Go to page 6



### IF A PROFESSIONAL, LANDSCAPER, OR LANDLORD USES AN INSECTICIDE IN YOUR HOME OR YARD

Go to page 8



### IF YOU USE AN INSECTICIDE IN YOUR HOME OR YARD

Go to the log entries beginning on page 10

# Bucket: Professional Application

## INSECTICIDES USED BY A PROFESSIONAL



Survey of Home Insecticide Use | Log for Months 1-3

Please fill out the information below for **each time** a professional, landscaper, or landlord uses an insecticide in your home, yard, or garden.

### Visit 1

DATE OF VISIT

\_\_\_\_/\_\_\_\_/\_\_\_\_

PROFESSIONAL  
OR LANDLORD  
CONTACT  
INFORMATION

Company name

Telephone number

(\_\_\_\_)-\_\_\_\_-\_\_\_\_

Address

Street

City

State

Zip

REASON FOR  
APPLICATION

HOW SOON DID YOU  
OR OTHERS COME  
IN CONTACT WITH  
THE TREATED SPACE?

- ☐ Immediately
- ☐ Less than one hour
- ☐ One to 4 hours
- ☐ More than 4 hours
- ☐ Don't know

### Visit 2

\_\_\_\_/\_\_\_\_/\_\_\_\_

Company name

Telephone number

(\_\_\_\_)-\_\_\_\_-\_\_\_\_

Address

Street

City

State

Zip

- ☐ Immediately
- ☐ Less than one hour
- ☐ One to 4 hours
- ☐ More than 4 hours
- ☐ Don't know

### Visit 3

\_\_\_\_/\_\_\_\_/\_\_\_\_

Company name

Telephone number

(\_\_\_\_)-\_\_\_\_-\_\_\_\_

Address

Street

City

State

Zip

- ☐ Immediately
- ☐ Less than one hour
- ☐ One to 4 hours
- ☐ More than 4 hours
- ☐ Don't know

# Icons

# TYPE OF PRODUCT

Choose 1

## ☐ Aerosol can



Size of can (in ounces) \_\_\_\_\_

Amount used:

- ☐ Spot treatment (small amount)
- ☐ Half the container or less
- ☐ More than half, but not all of the container
- ☐ Entire container

## ☐ Bait station, trap, or fly strip



Number used \_\_\_\_\_

## ☐ Candles or coil



Number used \_\_\_\_\_

Time used:

- ☐ Less than 1 hour
- ☐ 1 to 2 hours
- ☐ More than 2 hours

## ☐ Concentrate



- ☐ Powder
- ☐ Liquid
- ☐ Other \_\_\_\_\_

Ounces of concentrate used \_\_\_\_\_

Amount of water mixed with concentrate ☐ Ounces  
☐ Gallons  
☐ Don't know

Amount of mixture used:

- ☐ Half the mixture or less
- ☐ More than half, but not all
- ☐ Entire mixture

Square feet covered \_\_\_\_\_

Method of applying:

- ☐ Trigger or pump sprayer
- ☐ Hose end sprayer
- ☐ Something else \_\_\_\_\_

## ☐ Foam or gel



Size of container (in ounces) \_\_\_\_\_

Amount used:

- ☐ Spot treatment (small amount)
- ☐ Half the container or less
- ☐ More than half, but not all
- ☐ Entire container

## ☐ Fogger



Size of container (in ounces) \_\_\_\_\_

Number of foggers used \_\_\_\_\_

Number of rooms treated \_\_\_\_\_

## ☐ Granules, dust, powder, or pellets



Size of container (in ounces) \_\_\_\_\_

Amount used:

- ☐ Spot treatment (small amount)
- ☐ Half the container or less
- ☐ More than half but not all
- ☐ Entire container

Method of applying:

- ☐ Handheld spreader
- ☐ Walk behind or "push" spreader
- ☐ Spread directly from container
- ☐ Something else \_\_\_\_\_

## ☐ Non-aerosol sprayer or pump bottle



Size of container (in ounces) \_\_\_\_\_

Amount used:

- ☐ Spot treatment (small amount)
- ☐ Half the container or less
- ☐ More than half but not all
- ☐ Entire container

## ☐ Shampoo



Size of container (in ounces) \_\_\_\_\_

Amount used:

- ☐ Spot treatment (small amount)
- ☐ Half the container or less
- ☐ More than half but not all
- ☐ Entire container

## ☐ Spot-on drops for pets



Size of container (in ounces) \_\_\_\_\_

## ☐ Flea collar for pet



Number of pets with collars \_\_\_\_\_

## ☐ Something else (Specify)

# Findings from Round 1 Testing

- Most icons worked well.
- Respondent issues:
  - Reported foggers under the aerosol can section

☐ Fogger



☐ Aerosol can



- Misinterpreted the concentrate section to refer to liquid products with “concentrate” or “concentrated” on the label

☐ Concentrate



# Fogger Icon



**Fogger**



**Size of container (in ounces) \_\_\_\_\_**

**Number of foggers used \_\_\_\_\_**

**Number of rooms treated \_\_\_\_\_**



**Fogger or bomb**



**Size of container (oz.) \_\_\_\_\_**

**Number of foggers used \_\_\_\_\_**

**Number of rooms treated \_\_\_\_\_**

# Concentrate Icon

## ☐ Concentrate

- ☐ Powder
- ☐ Liquid
- ☐ Other \_\_\_\_\_

Ounces of concentrate used \_\_\_\_\_

Amount of water mixed with concentrate \_\_\_\_\_  
☐ Ounces  
☐ Gallons  
☐ Don't know

Amount of mixture used:

- ☐ Half the mixture or less
- ☐ More than half, but not all
- ☐ Entire mixture

Square feet covered \_\_\_\_\_

Method of applying:

- ☐ Trigger or pump sprayer
- ☐ Hose end sprayer
- ☐ Something else \_\_\_\_\_



## ☐ Insecticide you mix with water

- ☐ Powder
- ☐ Liquid
- ☐ Other \_\_\_\_\_

Amount of concentrate used (oz) \_\_\_\_\_

Amount of water mixed with concentrate \_\_\_\_\_  
☐ oz ☐ gal  
☐ Don't know

Amount of mixture used:

- ☐ Half the mixture or less
- ☐ More than half, but not all
- ☐ Entire mixture

Square feet covered \_\_\_\_\_

Method of applying:

- ☐ Trigger or pump sprayer
- ☐ Hose end sprayer
- ☐ Something else \_\_\_\_\_



# Findings from Round 2 Testing

- Icons worked as intended

# Instructions

# Log Instructions

## What should I include in my log?

This log asks about **insecticides** that have been used in your home, in your yard or garden, including ones used on a pet or person. Insecticides are used to control **insects**, such as roaches or ants infesting your kitchen, termites causing damage to your home, fleas on your dog and cat, or mosquitos while you're in your yard. They do not include products used to control pests that are not insects, such as weeds or rodents.

## How often should I fill out the log?

We want to know about **every time** an insecticide is used in your home, yard or garden, or on a pet or person. If someone puts an insecticide on your lawn – that's one log entry. The following month when they do it again, that is a second entry. If someone treats the kitchen for ants, that's another log entry.

It's easiest and most accurate if you fill out the log every time you use an insecticide. We will send you a reminder.

## What if I don't use any insecticides during these 3 months?

Even if you haven't used an insecticide product in your home, yard, or garden or on a pet or person, please return the log. Check the box on the back cover to let us know you haven't used any insecticides during this time.

## What if someone else uses an insecticide in my home?

If a landlord, building manager, landscaper, or pest control specialist, applies an insecticide, please tell us about it. Sometimes, a receipt or letter provides information on what insecticides were applied. If you don't know what insecticides were used, please provide the contact information for the professional applicator, the date of service, and the reason for the application, if known.

## Where do I find the EPA Reg. No.?

The EPA Registration Number can be found on the package or container. It is a string of numbers following the words "EPA Reg. No." The EPA Reg. No. will not contain any letters.

For the next three months,  
fill out a log entry for each  
and every time you use  
an insecticide.



## INCLUDE

- Sprays or bait to treat roaches, ants, or other bugs in your home
- Sprays, creams, or lotions that you put on your body to prevent mosquito or other bug bites
- "Dust" or other pesticides for flower or vegetable gardens
- Insecticide granules or powder applied to grass or lawns
- Sprays, powders, spot-on products, or collars to prevent or kill fleas or ticks on your pet



## DON'T INCLUDE

- Weed killers
- Rodent control
- Disinfectants

# Findings from Round 1 Testing

Respondents often did not read the instructions

- Missed important points, such as:
  - instruction to complete an entry for each and every application
  - what counts as an insect (e.g., *not* rodents)
  - what to do if no insecticides were used
  - what to do if need additional logs

# Original

## Log Instructions

### What should I include in my log?

This log asks about **insecticides** that have been used in your home, in your yard or garden, including ones used on a pet or person. Insecticides are used to control **insects**, such as roaches or ants infesting your kitchen, termites causing damage to your home, fleas on your dog and cat, or mosquitoes while you're in your yard. They do not include products used to control pests that are not insects, such as weeds or rodents.

### How often should I fill out the log?

We want to know about **every time** an insecticide is used in your home, yard or garden, or on a pet or person. If someone puts an insecticide on your lawn – that's one log entry. The following month when they do it again, that is a second entry. If someone treats the kitchen for ants, that's another log entry.

It's easiest and most accurate if you fill out the log every time you use an insecticide. We will send you a reminder.

### What if I don't use any insecticides during these 3 months?

Even if you haven't used an insecticide product in your home, yard, or garden or on a pet or person, please return the log. Check the box on the back cover to let us know you haven't used any insecticides during this time.

### What if someone else uses an insecticide in my home?

If a landlord, building manager, landscaper, or pest control specialist, applies an insecticide, please tell us about it. Sometimes, a receipt or letter provides information on what insecticides were applied. If you don't know what insecticides were used, please provide the contact information for the professional applicator, the date of service, and the reason for the application, if known.

### Where do I find the EPA Reg. No.?

The EPA Registration Number can be found on the package or container. It is a string of numbers following the words "EPA Reg. No." The EPA Reg. No. will not contain any letters.

For the next three months, fill out a log entry for each and every time you use an insecticide.



### INCLUDE

- Sprays or bait to treat roaches, ants, or other bugs in your home
- Sprays, creams, or lotions that you put on your body to prevent mosquito or other bug bites
- "Dust" or other pesticides for flower or vegetable gardens
- Insecticide granules or powder applied to grass or lawns
- Sprays, powders, spot-on products, or collars to prevent or kill fleas or ticks on your pet



### DON'T INCLUDE

- Weed killers
- Rodent control
- Disinfectants

# Revised

## What Do I Do?

**For the next three months, fill out a log entry for each and every time you use an insecticide.**

**An insecticide is a product used to control insects.**

Insecticides are used in homes, yards, gardens, as well as on pets and people.



### INCLUDE

- Sprays or bait to treat roaches, ants, termites, or other bugs in your home
- Sprays, creams, lotions, or shampoos that you put on your body to prevent mosquito or other bug bites or to treat for lice
- "Dust" or other insecticides for flower or vegetable gardens
- Insecticide granules or powder applied to grass or lawns
- Sprays, powders, spot-on products, or collars to prevent or kill fleas or ticks on your pet



### DON'T INCLUDE

- Weed killers
- Products to control rodents such as mice, rats, or squirrels
- Disinfectants



### IF YOU USE AN INSECTICIDE ON A PERSON

Go to page 4



### IF YOU USE AN INSECTICIDE ON A PET

Go to page 6



### IF A PROFESSIONAL, LANDSCAPER, OR LANDLORD USES AN INSECTICIDE IN YOUR HOME OR YARD

Go to page 8



### IF YOU USE AN INSECTICIDE IN YOUR HOME OR YARD

Go to the log entries beginning on page 10



### The log asks for an EPA Reg. No. Where do I find it?

The EPA Registration Number can be difficult to find, but it is very important. It tells us exactly what insecticides were used. It is usually on the outside of the package in small print. It is a string of numbers following the words "EPA Reg. No." It will **not** contain any letters.

### What if I don't use any insecticides during these 3 months?

We still want to know. It's important for us to know when insecticides aren't used.



If you haven't used any insecticides, please check this box and send back the log at the end of the 3 months.

# Log Instructions

## What should I include in my log?

This log asks about **insecticides** that have been used in your home, in your yard or garden, including ones used on a pet or person. Insecticides are used to control **insects**, such as roaches or ants infesting your kitchen, termites causing damage to your home, fleas on your dog and cat, or mosquitoes while you're in your yard. They do not include products used to control pests that are not insects, such as weeds or rodents.

## How often should I fill out the log?

We want to know about **every time** an insecticide is used in your home, yard or garden, or on a pet or person. If someone puts an insecticide on your lawn – that's one log entry. The following month when they do it again, that is a second entry. If someone treats the kitchen for ants, that's another log entry.

It's easiest and most accurate if you fill out the log every time you use an insecticide. We will send you a reminder.

## What if I don't use any insecticides during these 3 months?

Even if you haven't used an insecticide product in your home, yard, or garden or on a pet or person, please return the log. Check the box on the back cover to let us know you haven't used any insecticides during this time.

## What if someone else uses an insecticide in my home?

If a landlord, building manager, landscaper, or pest control specialist applies an insecticide, please tell us about it. Sometimes, a receipt or letter provides information on what insecticides were applied. If you don't know what insecticides were used, please provide the contact information for the professional applicator, the date of service, and the reason for the application, if known.

## Where do I find the EPA Reg. No.?

The EPA Registration Number can be found on the package or container. It is a string of numbers following the words "EPA Reg. No." The EPA Reg. No. will not contain any letters.

For the next three months, fill out a log entry for each and every time you use an insecticide.



## INCLUDE

- Sprays or bait to treat roaches, ants, or other bugs in your home
- Sprays, creams, or lotions that you put on your body to prevent mosquito or other bug bites
- "Dust" or other pesticides for flower or vegetable gardens
- Insecticide granules or powder applied to grass or lawns
- Sprays, powders, spot-on products, or collars to prevent or kill fleas or ticks on your pet



## DON'T INCLUDE

- Weed killers
- Rodent control
- Disinfectants

# What Do I Do?

For the next three months, fill out a log entry for each and every time you use an insecticide.

An insecticide is a product used to control insects.

Insecticides are used in homes, yards, gardens, as well as on pets and people.



## INCLUDE

- Sprays or bait to treat roaches, ants, termites, or other bugs in your home
- Sprays, creams, lotions, or shampoos that you put on your body to prevent mosquito or other bug bites or to treat for lice
- "Dust" or other insecticides for flower or vegetable gardens
- Insecticide granules or powder applied to grass or lawns
- Sprays, powders, spot-on products, or collars to prevent or kill fleas or ticks on your pet



## DON'T INCLUDE

- Weed killers
- Products to control rodents such as mice, rats, or squirrels
- Disinfectants



## IF YOU USE AN INSECTICIDE ON A PERSON

Go to page 4



## IF YOU USE AN INSECTICIDE ON A PET

Go to page 6



## IF A PROFESSIONAL, LANDSCAPER, OR LANDLORD USES AN INSECTICIDE IN YOUR HOME OR YARD

Go to page 8



## IF YOU USE AN INSECTICIDE IN YOUR HOME OR YARD

Go to the log entries beginning on page 10



## The log asks for an EPA Reg. No. Where do I find it?

The EPA Registration Number can be difficult to find, but it is very important. It tells us exactly what insecticides were used. It is usually on the outside of the package in small print. It is a string of numbers following the words "EPA Reg. No." It will not contain any letters.

## What if I don't use any insecticides during these 3 months?

We still want to know. It's important for us to know when insecticides aren't used.



If you haven't used any insecticides, please check this box and send back the log at the end of the 3 months.

## Log Instructions

### What should I include in my log?

This log asks about **insecticides** that have been used in your home, yard or garden, including ones used on a pet or person. Insecticides are used to control **insects**, such as roaches or ants infesting your kitchen, termites causing damage to your home, fleas on your dog and cat, or mosquitoes while you're in your yard. They do not include products used to control pests that are not insects, such as weeds or rodents.

### How often should I fill out the log?

We want to know about **every time** an insecticide is used in your home, yard or garden, or on a pet or person. If someone puts an insecticide on your lawn, that's one log entry. The following month when they do it again, that is a second entry. If someone treats the kitchen for ants, that's another log entry.

It's easiest and most accurate if you fill out the log every time you use an insecticide. We will send you a reminder.

### What if I don't use any insecticides during these 3 months?

Even if you haven't used an insecticide product in your home, yard, or garden or on a pet or person, please return the log. Check the box on the back cover to let us know you haven't used any insecticides during this time.

### What if someone else uses an insecticide in my home?

If a landlord, building manager, landscaper, or pest control specialist applies an insecticide, please tell us about it. Sometimes, a receipt or letter provides information on what insecticides were applied. If you don't know what insecticides were used, please provide the contact information for the professional applicator, the date of service, and the reason for the application, if known.

### Where do I find the EPA Reg. No.?

The EPA Registration Number can be found on the package or container. It is a string of numbers following the words "EPA Reg. No." The EPA Reg. No. will not contain any letters.



### INCLUDE

- Sprays or baits to treat roaches, ants, or other bugs in your home
- Sprays, creams, or lotions that you put on your body to prevent mosquito or other bug bites
- "Dust" or other pesticides for flower or vegetable gardens
- Insecticide granules or powder applied to grass or lawns
- Sprays, powders, spot-on products, or collars to prevent or kill fleas or ticks on your pet



### DON'T INCLUDE

- Weed killers
- Rodent control
- Disinfectants

For the next three months, fill out a log entry for each and every time you use an insecticide.

## What Do I Do?

An **insecticide** is a product used to control insects.

Insecticides are used in homes, yards, gardens, as well as on pets and people.



### INCLUDE

- Sprays or baits to treat roaches, ants, termites, or other bugs in your home
- Sprays, creams, lotions, or shampoos that you put on your body to prevent mosquito or other bug bites or to treat for lice
- "Dust" or other insecticides for flower or vegetable gardens
- Insecticide granules or powder applied to grass or lawns
- Sprays, powders, spot-on products, or collars to prevent or kill fleas or ticks on your pet



### DON'T INCLUDE

- Weed killers
- Products to control rodents such as mice, rats, or squirrels
- Disinfectants



### IF YOU USE AN INSECTICIDE ON A PERSON

Go to page **4**



### IF YOU USE AN INSECTICIDE ON A PET

Go to page **6**



### IF A PROFESSIONAL, LANDSCAPER, OR LANDLORD USES AN INSECTICIDE IN YOUR HOME OR YARD

Go to page **8**



### IF YOU USE AN INSECTICIDE IN YOUR HOME OR YARD

Go to the log entries beginning on page **10**



### The log asks for an EPA Reg. No. Where do I find it?

The EPA Registration Number can be difficult to find, but it is very important. It tells us exactly what insecticides were used. It is usually on the outside of the package in small print. It is a string of numbers following the words "EPA Reg. No." It will not contain any letters.

### What if I don't use any insecticides during these 3 months?

We still want to know. It's important for us to know when insecticides aren't used.



If you haven't used any insecticides, please check this box and send back the log at the end of the 3 months.

## Log Instructions

### What should I include in my log?

This log asks about **insecticides** that have been used in your home, in your yard or garden, including ones used on a pet or person. Insecticides are used to control **insects**, such as roaches or ants infesting your kitchen, termites causing damage to your home, fleas on your dog and cat, or mosquitoes while you're in your yard. They do not include products used to control pests that are not insects, such as weeds or rodents.

### How often should I fill out the log?

We want to know about **every time** an insecticide is used in your home, yard or garden, or on a pet or person. If someone puts an insecticide on your lawn – that's one log entry. The following month when they do it again, that is a second entry. If someone treats the kitchen for ants, that's another log entry.

It's easiest and most accurate if you fill out the log every time you use an insecticide. We will send you a reminder.

### What if I don't use any insecticides during these 3 months?

Even if you haven't used an insecticide product in your home, yard, or garden or on a pet or person, please return the log. Check the box on the back cover to let us know you haven't used any insecticides during this time.

### What if someone else uses an insecticide in my home?

If a landlord, building manager, landscaper, or pest control specialist applies an insecticide, please tell us about it. Sometimes, a receipt or letter provides information on what insecticides were applied. If you don't know what insecticides were used, please provide the contact information for the professional applicator, the date of service, and the reason for the application, if known.

### Where do I find the EPA Reg. No.?

The EPA Registration Number can be found on the package or container. It is a string of numbers following the words "EPA Reg. No." The EPA Reg. No. will not contain any letters.

For the next three months, fill out a log entry for each and every time you use an insecticide.

### INCLUDE

- Sprays or baits to treat roaches, ants, or other bugs in your home
- Sprays, creams, or lotions that you put on your body to prevent mosquito or other bug bites
- "Dust" or other pesticides for flower or vegetable gardens
- Insecticide granules or powder applied to grass or lawns
- Sprays, powders, spot-on products, or collars to prevent or kill fleas or ticks on your pet

### DON'T INCLUDE

- Weed killers
- Rodent control
- Disinfectants

## What Do I Do?

For the next three months, fill out a log entry for each and every time you use an insecticide.

### An insecticide is a product used to control insects.

Insecticides are used in homes, yards, gardens, as well as on pets and people.

### INCLUDE

- Sprays or baits to treat roaches, ants, termites, or other bugs in your home
- Sprays, creams, lotions, or shampoos that you put on your body to prevent mosquito or other bug bites or to treat for lice
- "Dust" or other insecticides for flower or vegetable gardens
- Insecticide granules or powder applied to grass or lawns
- Sprays, powders, spot-on products, or collars to prevent or kill fleas or ticks on your pet

### DON'T INCLUDE

- Weed killers
- Products to control rodents such as mice, rats, or squirrels
- Disinfectants

### IF YOU USE AN INSECTICIDE ON A PERSON

Go to page 4

### IF YOU USE AN INSECTICIDE ON A PET

Go to page 6

### IF A PROFESSIONAL, LANDSCAPER, OR LANDLORD USES AN INSECTICIDE IN YOUR HOME OR YARD

Go to page 8

### IF YOU USE AN INSECTICIDE IN YOUR HOME OR YARD

Go to the log entries beginning on page 10



### The log asks for an EPA Reg. No. Where do I find it?

The EPA Registration Number can be difficult to find, but it is very important. It tells us exactly what insecticides were used. It is usually on the outside of the package in small print. It is a string of numbers following the words "EPA Reg. No." It will not contain any letters.

### What if I don't use any insecticides during these 3 months?

We still want to know. It's important for us to know when insecticides aren't used.

- ☐ If you haven't used any insecticides, please check this box and send back the log at the end of the 3 months.

## Log Instructions

### What should I include in my log?

This log asks about **insecticides** that have been used in your home, in your yard or garden, including ones used on a pet or person. Insecticides are used to control **insects**, such as roaches or ants infesting your kitchen, termites causing damage to your home, fleas on your dog and cat, or mosquitos while you're in your yard. They do not include products used to control pests that are not insects, such as weeds or rodents.

### How often should I fill out the log?

We want to know about **every time** an insecticide is used in your home, yard or garden, or on a pet or person. If someone puts an insecticide on your lawn – that's one log entry. The following month when they do it again, that is a second entry. If someone treats the kitchen for ants, that's another log entry.

It's easiest and most accurate if you fill out the log every time you use an insecticide. We will send you a reminder.

### What if I don't use any insecticides during these 3 months?

Even if you haven't used an insecticide product in your home, yard, or garden or on a pet or person, please return the log. Check the box on the back cover to let us know you haven't used any insecticides during this time.

### What if someone else uses an insecticide in my home?

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### Where do I find the EPA Reg. No.?

The EPA Registration Number can be found on the package or container. It is a string of numbers following the words "EPA Reg. No." The EPA Reg. No. will not contain any letters.

For the next three months, fill out a log entry for each and every time you use an insecticide.



### INCLUDE

- Sprays or bait to treat roaches, ants, or other bugs in your home
- Sprays, creams, or lotions that you put on your body to prevent mosquito or other bug bites
- "Dust" or other pesticides for flower or vegetable gardens
- Insecticide granules or powder applied to grass or lawns
- Sprays, powders, spot-on products, or collars to prevent or kill fleas or ticks on your pet



### DON'T INCLUDE

- Weed killers
- Rodent control
- Disinfectants

## What Do I Do?

For the next three months, fill out a log entry for each and every time you use an insecticide.

**An insecticide is a product used to control insects.**

Insecticides are used in homes, yards, gardens, as well as on pets and people.



### INCLUDE

- Sprays or bait to treat roaches, ants, termites, or other bugs in your home
- Sprays, creams, lotions, or shampoo that you put on your body to prevent mosquito or other bug bites or to treat for lice
- "Dust" or other insecticides for flower or vegetable gardens
- Insecticide granules or powder applied to grass or lawns
- Sprays, powders, spot-on products, or collars to prevent or kill fleas or ticks on your pet



### DON'T INCLUDE

- Weed killers
- Products to control rodents such as mice, rats, or squirrels
- Disinfectants



### IF YOU USE AN INSECTICIDE ON A PERSON

Go to page 4



### IF YOU USE AN INSECTICIDE ON A PET

Go to page 6



### IF A PROFESSIONAL, LANDSCAPER, OR LANDLORD USES AN INSECTICIDE IN YOUR HOME OR YARD

Go to page 8



### IF YOU USE AN INSECTICIDE IN YOUR HOME OR YARD

Go to the log entries beginning on page 10



### The log asks for an EPA Reg. No. Where do I find it?

The EPA Registration Number can be difficult to find, but it is very important. It tells us exactly what insecticides were used. It is usually on the outside of the package in small print. It is a string of numbers following the words "EPA Reg. No." It will **not** contain any letters.

### What if I don't use any insecticides during these 3 months?

We still want to know. It's important for us to know when insecticides aren't used.



If you haven't used any insecticides, please check this box and send back the log at the end of the 3 months.

## Log Instructions

### What should I include in my log?

This log asks about **insecticides** that have been used in your home, in your yard or garden, including ones used on a pet or person. Insecticides are used to control **insects**, such as roaches or ants infesting your kitchen, termites causing damage to your home, fleas on your dog and cat, or mosquitoes while you're in your yard. They do not include products used to control pests that are not insects, such as weeds or rodents.

### How often should I fill out the log?

We want to know about **every time** an insecticide is used in your home, yard or garden, or on a pet or person. If someone puts an insecticide on your lawn – that's one log entry. The following month when they do it again, that is a second entry. If someone treats the kitchen for ants, that's another log entry.

It's easiest and most accurate if you fill out the log every time you use an insecticide. We will send you a reminder.

### What if I don't use any insecticides during these 3 months?

Even if you haven't used an insecticide product in your home, yard, or garden or on a pet or person, please return the log. Check the box on the back cover to let us know you haven't used any insecticides during this time.

### What if someone else uses an insecticide in my home?

If a landlord, building manager, landscaper, or pest control specialist applies an insecticide, please tell us about it. Sometimes, a receipt or letter provides information on what insecticides were applied. If you don't know what insecticides were used, please provide the contact information for the professional applicator, the date of service, and the reason for the application, if known.

### Where do I find the EPA Reg. No.?

The EPA Registration Number can be found on the package or container. It is a string of numbers following the words "EPA Reg. No." The EPA Reg. No. will not contain any letters.

For the next three months, fill out a log entry for each and every time you use an insecticide.



### INCLUDE

- Sprays or baits to treat roaches, ants, or other bugs in your home
- Sprays, creams, lotions, or shampoos that you put on your body to prevent mosquito or other bug bites
- "Dust" or other pesticides for flower or vegetable gardens
- Insecticide granules or powder applied to grass or lawns
- Sprays, powders, spot-on products, or collars to prevent or kill fleas or ticks on your pet



### DON'T INCLUDE

- Weed killers
- Rodent control
- Disinfectants

## What Do I Do?

For the next three months, fill out a log entry for each and every time you use an insecticide.

An insecticide is a product used to control insects.

Insecticides are used in homes, yards, gardens, as well as on pets and people.



### INCLUDE

- Sprays or baits to treat roaches, ants, termites, or other bugs in your home
- Sprays, creams, lotions, or shampoos that you put on your body to prevent mosquito or other bug bites or to treat for lice
- "Dust" or other insecticides for flower or vegetable gardens
- Insecticide granules or powder applied to grass or lawns
- Sprays, powders, spot-on products, or collars to prevent or kill fleas or ticks on your pet



### DON'T INCLUDE

- Weed killers
- Products to control rodents such as mice, rats, or squirrels
- Disinfectants



### IF YOU USE AN INSECTICIDE ON A PERSON

Go to page 4



### IF YOU USE AN INSECTICIDE ON A PET

Go to page 6



### IF A PROFESSIONAL, LANDSCAPER, OR LANDLORD USES AN INSECTICIDE IN YOUR HOME OR YARD

Go to page 8



### IF YOU USE AN INSECTICIDE IN YOUR HOME OR YARD

Go to the log entries beginning on page 10



### The log asks for an EPA Reg. No. Where do I find it?

The EPA Registration Number can be difficult to find, but it is very important. It tells us exactly what insecticides were used. It is usually on the outside of the package in small print. It is a string of numbers following the words "EPA Reg. No." It will not contain any letters.

### What if I don't use any insecticides during these 3 months?

We still want to know. It's important for us to know when insecticides aren't used.



If you haven't used any insecticides, please check this box and send back the log at the end of the 3 months.

# Findings from Round 2 Testing

Respondents read instructions more often and were much more likely to remember vital information

- One respondent defined a mouse as an insect, so we added examples of rodents to the exclusion list



## DON'T INCLUDE

- Weed killers
- Products to control rodents such as mice, rats, or squirrels
- Disinfectants

# Final Thoughts

# Takeaways

- Design does impact respondents' ability to report data correctly
- Color & icons matter
- Simplifying instructions is best
- Some information needs to be repeated everywhere

# Final Thoughts

- The complexity of survey diaries require a great deal of expertise to design
  - Combined expertise of three survey methodologists (one of whom was also a usability expert) and graphic designer was key
- Iterative testing is important
  - Even with a strong initial design, two rounds of cognitive testing still revealed significant issues

# References

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