

*Survey of Chemical Use and
Pest Control Practices in
Iowa's Licensed Child Care Centers*



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This questionnaire contains questions about your knowledge and opinions of pesticides and their use to control pests on your licensed child care center property. The information you provide will be used to understand chemical uses and pest control practices in Iowa's child care centers, and to design educational materials to maintain safe working and learning conditions for children and personnel.

To validate the survey process, approximately 10% of respondents will receive a visit from their regional child care center nurse consultant. They will be completing a portion of this same survey within your child care center.

Your answers and the validation results will be kept in strict confidence. The results from this survey will not be associated in any way with your name or center.

Please read and follow instructions carefully. Keep in mind that this is not a test. Your response should be based on your experience and skills.

Please answer all of the questions. If you do not know an answer, be sure to mark "Don't know" for that question.

Please return your completed questionnaire in the enclosed stamped envelope. Please contact me if I can be of assistance to you. Thank you very much for your help.

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Before starting, please review a few definitions of terms used in the survey:

Pest: any living organism that harms persons, property or the environment. Examples include insects, spiders, rodents, weeds, and plant diseases.

Pesticide: any substance or mixture of substances intended for preventing, destroying, repelling or reducing pest numbers

Disinfectant: a chemical that inactivates disease producing microorganisms

Weed: a plant growing where it is not wanted

Herbicide: pesticide used to kill weeds

Insecticide: pesticide used to kill insects and spiders

Rodenticide: a pesticide used to kill rodents such as rats and mice

Safety Issues with Children

1. There are many safety concerns associated with young children in Iowa today. What are the 3 issues that you consider most important?

Child's personal safety, accident prevention – 43

Safe playground equipment, playground safety – 33

Use of car seats, safe transportation – 33

Exposure to chemicals, cleaners – 25

Safe, secure learning environment – 25

Child abuse, neglect – 19

Child's health – 19

Chemicals in home environment – 18

Communicable diseases – 17

Cleanliness of environment, child – 16

Adequate supervision of child at home – 14

Poisons, poison control – 12

Drugs, alcohol in child's environment – 10

Diet quality; Kidnapping, abductions; Sexual predators – 9

Safe home environment – 8

Clean air; Lead paint in child's environment; Toy safety – 7

Childhood allergy, allergens; Child-to-child interaction, bullies; Overall welfare of child – 6

Proper immunizations; Qualified staff – 5

Chemicals kept locked up; Childhood obesity; Quality education for children;

Second-hand tobacco smoke – 4

Appropriate funding for needs; Choking concerns; Correct child with correct parent/guardian; Food allergies; Guns in child's environment – 3

Adequate shelter; Adequate sleep; Care for special needs children; Clean water, Emergency procedures; Fire safety; Gangs; Kids left behind by parent's quest for success;

Parent safety education; Proper first aid for a child; Proper food handling by parents; Safe place for kids to go; Swimming safety; Sunburns – 2

Administering medications; Asthma; Bug bites; Childhood cancer; Current parent contact information; Frostbite; Lack of discipline; Lack of family structure; State regulations followed – 1

Pests in/around your child care center

Respondent was asked to circle one response for each question, unless otherwise directed in a specific question.

2. Are you satisfied with the level of *interior* pest control your child care center receives?

Yes – 87.2% No – 6.7% Don't know – 3.3% No response – 2.8%

3. Are you satisfied with the level of **outside** pest control your child care center receives?

Yes – 82.2% No – 6.1% Don't know – 8.9% No response – 2.8%

4. Which of the following pests have **you** seen in the past year **inside** your child care center? [Respondent was asked to circle one response for each line.]

Percent Response	Not seen	Rarely	Commonly	Don't know	No response
a. Ants	35.6	45.0	18.9	--	0.6
b. Bees or wasps	68.9	26.1	4.4	--	0.6
c. Cockroaches	82.8	14.4	1.1	--	1.7
d. Flies (house flies, gnats, drain flies, etc)	9.4	59.4	30.0	--	1.1
e. Head lice	45.6	45.0	8.3	0.6	0.6
f. Rodents (mice or rats)	68.9	24.4	5.0	0.6	1.1
g. Spiders	18.3	67.8	13.3	--	0.6
h. Stored food pests (beetles or moths)	88.3	10.6	--	0.6	0.6
i. Termites	96.1	--	--	2.8	1.1
j. Incidental invaders (boxelder bugs, clover mites, crickets, lady beetles, millipedes)	28.3	44.4	26.1	0.6	0.6
k. Other (None specified)	35.6	--	--	16.1	48.3

5. Which of the following pests have **you** seen in the past year **outside** your child care center? [Respondent was asked to circle one response for each line.]

Percent Response	Not seen	Rarely	Commonly	Don't know	No response
a. Ants	11.1	30.0	55.0	2.8	1.1
b. Bees or wasps	12.8	47.2	37.8	0.6	1.7
c. Beetles	39.4	38.9	18.9	0.6	2.2
d. Cockroaches	93.3	3.3	1.7	--	1.7
e. Crickets	23.3	46.1	28.3	--	2.2
f. Flies (house flies, gnats, mosquitoes)	1.7	36.7	60.0	0.6	1.1
g. Rodents (mice or rats)	87.8	10.0	0.6	--	1.7
h. Spiders	15.6	52.2	30.0	0.6	1.7
i. Termites	93.9	1.1	--	3.3	1.7
j. Weeds attracting bees and wasps (dandelions, clover, etc.)	30.0	26.1	41.1	0.6	2.2
k. Weeds that are dangerous (nettles, thistles, poison ivy, hemlock, etc.)	85.0	8.9	2.2	1.7	2.2
l. Weeds taking away beauty of grounds (crabgrass, nutsedge, etc.)	43.9	30.0	21.7	2.8	1.7
m. Other [See below]	30.6	1.1	--	15.6	52.8

5. Other Responses: **Rabbit lives under a storage shed – 1**
Stray animals – dogs, squirrels – 1

Pesticide use in your child care center

6. Does your child care center have a **written policy** for insecticide, herbicide or rodenticide use, stating when and how to apply pesticides?

Yes – 13.9% No – 64.4% Don't know – 20.0% No response – 1.7%

7. Does your child care center maintain **written records** of insecticide, rodenticide and herbicide applications?

Yes – 30.0% No – 51.1% Don't know – 15.0% No response – 3.9%

8. Does your child care center have the **material safety data sheets (MSDS)** for all chemicals used in or on the property?

Yes – 33.3% No – 41.1% Don't know – 23.3% No response – 2.2%

9. Does your child care center have a copy of **product labels** for all chemicals used in or on the property?

Yes – 41.7% No – 37.8% Don't know – 17.2% No response – 3.3%

10. Does your child care center provide employees with a copy of the product label for **new chemicals** prior to first use?

Yes – 22.8% No – 60.6% Don't know – 14.4% No response – 2.2%

12. Concerning use of **rodenticides** to control mice/rats **inside** the child care center, who applies them? [Respondent was asked to circle one response for each line.]

Percent Response	Yes	No	Don't know	Not Applicable	No response
a. Rodenticides are not used inside this center	53.3	37.8	7.8	--	1.1
b. Staff member	5.0	31.7	3.9	53.3	6.1
c. Relative or acquaintance of staff member	1.1	34.4	3.9	53.3	7.2
d. Professional pest control service [See below]	23.9	8.9	8.3	53.3	5.6
e. Janitorial service [See below]	4.4	27.2	8.9	53.3	6.1
f. Parent/guardian/client	0.6	35.0	3.9	53.3	7.2
g. Other [See below]	2.8	19.4	4.4	53.3	20.0

- 12 d. **AABLE – 1** **Fine – 2**
ABC – 2 **Orkin – 6**
All Star – 1 **Paul's – 1**
Atomic – 1 **Plunkett's – 2**
Certified – 1 **Premier – 1**
Coppes – 1 **Presto-X – 2**
D&D – 1 **Riteway – 1**
Diam – 1 **Terminix – 2**
DM – 1 **None specified – 16**

12 e. **None specified – 8**

12 g. **Board of Education president – 1; Building caretaker – 1; Custodian – 2; Owner – 1**

14. Concerning use of **herbicides** to control weeds **outside** the child care center, who applies them? [Respondent was asked to circle one response for each line.]

Percent Response	Yes	No	Don't know	Not Applicable	No response
a. Herbicides not used outside center	26.7	51.1	21.1	--	1.1
b. Staff member	8.9	42.8	7.2	26.7	14.4
c. Relative or acquaintance of staff member	2.8	48.3	7.2	26.7	15.0
d. Professional pest control service [See below]	5.6	35.0	16.7	26.7	16.1
e. Professional lawn care service [See below]	24.4	21.7	17.8	26.7	9.4
f. Janitorial service [See below]	7.2	39.4	15.0	26.7	11.7
g. Parent/guardian/client	0.6	50.6	7.2	26.7	15.0
h. Other [See below]	5.6	35.6	7.8	26.7	24.4

14d. **Aable – 1** **Plunkett's – 1** **Tuft – 1**
Ace – 1 **Premier – 1** **None specified – 5**

14e. **Ahren's Foundation – 1** **G & L Landscaping – 1** **Ritter's – 1**
Altoona – 1 **Grass Masters – 1** **Ten Naple – 1**
Chemlawn – 1 **J-Man – 1** **Tidy Turf – 1**
Christy – 1 **Juergen's – 1** **Total Scape – 1**
Cribb's – 1 **Larry Koger TM – 1** **TruGreen – 3**
Culver's – 1 **Moran – 1** **Vugteveen - 1**
Dave's – 1 **Nunn – 1** **None specified – 23**

14f. **Daryl – 1; David Orks – 1; Durant Schools – 1; Spencer Schools – 1;**
None specified – 4

14h. **Church member – 3; Committee member – 1; Owner – 1; Church janitor – 1**
Landlord – 2; University – 1; None specified – 1

15. If a **person** (staff member, relative, acquaintance, or parent) applies pesticides on the child care center property, what type of safety training has this person received?

- Pesticides are **not** applied on the child care center property – **25%**
- State certified pesticide applicator; list categories – **2.8%**; **none specified** – **5**
- Holds a certificate from Internet training course – **0.0%**
- Self-taught pesticide applicator – **7.8%**
- Pesticides are applied by a contracted company – **23.9%**
- Other – **3.9%**
 - **Application labels on bag** – **2**; **Building caretaker** – **1**; **Groundskeeper** – **1**;
 - **Owner** – **1**; **Read label – use borax acid gel or powder only** – **1**
- Don't know – **20.0%**
- No response – **16.7%**

16. How often is pest management used **inside** the child care center?

- No pest management is used inside this child care center – **23.9%**
- Once a week – **1.1%**
- Once a month – **25.6%**
- Every other month – **2.2%**
- Four times a year – **5.0%**
- Twice a year – **4.4%**
- As needed/ emergencies – **17.8%**
- Other – **1.1%**
 - **Once a year for ants** – **1**
 - **When preschool is not in session (1 time every 5 years)** – **1**
- Don't know – **16.7%**
- No response – **2.2%**

17. How often is pest management used **outside** on child care center property during the growing season?

- No pest management is used outside this child care center – **22.2%**
- Once a month – **12.2%**
- Twice a season – **7.2%**
- Four times a season – **5.6%**
- As needed – **21.2%**
- Other – **3.9%**
 - **Two times a year** – **2**
 - **Every other month** – **2**
 - **Once a year** – **1**
 - **When preschool is not in session (1 time every 5 years)** – **1**
 - **Once a month and as needed** – **1**
- Don't know – **25.0%**
- No response – **2.8%**

18. For pest control activities *inside* the child care facility, which of the following is true of the pest manager? [Respondent was asked to circle one response for each line.]

Percent Response	Yes	No	Don't know	Not Applicable	No response
a. A pest manager is <i>not</i> used for this child care center	41.1	44.4	12.2	--	2.2
b. Asks if you/ your staff have seen pests since last visit	34.4	10.6	9.4	41.1	4.4
c. Shows you the pests they find	23.9	20.0	10.6	41.1	4.4
d. Gives you options for pest control	22.8	18.9	12.2	41.1	5.0
e. Explains the differences between control options	22.8	17.8	13.3	41.1	5.0
f. Tells you exactly the chemicals that are being applied	19.4	20.6	13.9	41.1	5.0
g. Tells you exactly where the chemicals are being applied	28.9	12.2	13.3	41.1	4.4
h. Provides a copy of the pesticide label	9.4	27.2	17.2	41.1	5.0
i. Provides a copy of the material safety data sheet (MSDS)	11.1	25.6	17.2	41.1	5.0
j. Leaves a written record of their work for the visit	33.9	6.7	13.9	41.1	4.4

19. For pest control activities **outside** the child care facility, which of the following is true of the pest manager? [Respondent was asked to circle one response for each line.]

Percent Response	Yes	No	Don't know	Not Applicable	No response
a. A pest manager is not used for this center	43.3	34.4	19.4	--	2.8
b. Asks if pests have been seen since last visit	24.4	11.7	14.4	43.3	6.1
c. Shows you the pests they find	13.3	22.2	15.0	43.3	6.1
d. Gives you options for pest control	17.8	17.8	15.0	43.3	6.1
e. Explains differences between control options	17.2	17.8	15.6	43.3	6.1
f. Tells exactly chemicals being applied	17.2	17.8	15.6	43.3	6.1
g. Tells exactly where chemicals are applied	23.9	11.1	15.6	43.3	6.1
h. Provides a copy of the pesticide label	8.9	23.3	18.3	43.3	6.1
i. Provides a copy of the MSDS	11.1	20.6	18.9	43.3	6.1
j. Leaves written record of their work for visit	26.1	8.3	15.6	43.3	6.7

20. In which of the following **indoor** areas of your child care center were insecticides applied during the past year? [Respondent was asked to circle one response for each line.]

Percent Response	Yes	No	Don't know	Not Applicable	No response
a. Insecticides were not used inside	31.1	51.1	16.1	--	1.7
b. Kitchen/ food preparation	36.1	13.3	15.0	31.1	4.4
c. Food storage	26.7	21.7	15.0	31.1	5.6
d. Bathrooms	33.3	16.7	13.3	31.1	5.6
e. Coat closets	21.1	23.3	16.7	31.1	7.8
f. Classrooms	35.6	13.9	13.3	31.1	6.1
g. Basement	19.4	22.2	14.4	31.1	12.8
h. Furnace room	27.8	16.7	17.2	31.1	7.2
i. Custodial area	27.8	16.1	16.7	31.1	8.3
j. Director's office	24.4	22.8	14.4	31.1	7.2
k. Other [See below]	6.7	13.9	14.4	31.1	33.9

20. Other responses: **Back entry way – 1**
Baseboards – 1
Craft storage – 1
Exterior doors – 1
Gym – 3
Hallways – 2

Multipurpose room – 1
Open area – 1
Swimming pool area – 1
Under sinks, outlets – 1
Whole building – 1

21. For which of the following **outdoor** areas of your child care center were insecticides applied during the past year? [Respondent was asked to circle one response for each line.]

Percent Response	Yes	No	Don't know	Not Applicable	No response
a. Insecticides were <i>not</i> used outside	27.8	46.7	23.9	--	1.7
b. Grassy areas	27.8	16.1	21.1	27.8	7.2
c. Playground	22.2	22.8	21.7	27.8	5.6
d. Landscape plants	16.1	22.8	25.0	27.8	8.3
e. Exterior foundation of buildings	40.0	4.4	21.1	27.8	6.7
f. Other [See below]	0.6	16.7	18.9	27.8	36.1

21. Other response: **Wooden fence for termites – 1**

22. Which of the following pest management techniques are used **inside** your child care center? [Respondent was asked to circle one response for each line.]

Percent Response	Yes	No	Don't know	No response
a. Pesticide bait	15.0	57.2	17.2	10.6
b. Sticky trap	28.3	47.8	14.4	9.4
c. Vacuum	45.6	33.3	12.8	8.3
d. Pheromone trap	0.6	67.2	20.6	11.7

e. Rodent snap trap	14.4	58.9	15.6	11.1
f. Rodent multiple catch trap	6.1	66.7	16.7	10.6
g. Ultrasound device	3.3	68.9	17.2	10.6
h. Light trap	0.6	71.1	17.2	11.1
i. Replacement of door seal/ brush	26.7	44.4	18.9	10.0
j. Sealing around pipes, fixtures	31.1	39.4	20.6	8.9
k. Fixing leaky pipes	35.0	36.1	20.6	8.3
l. Keeping clutter to a minimum	68.9	13.3	11.1	6.7
m. Other [See below]	1.7	26.1	16.7	55.6

22. Other responses:

- **Live trap – 1**
- **Spray along baseboards – 1**
- **Use Borax acid gel or powder behind or under where children cannot touch – 1**

Insect repellants

23. Are insect repellants applied to the children before going outside?

- Yes, regularly during the mosquito season – **12.2%**
- Yes, occasionally during the mosquito season – **23.9%**
- No, repellants are not applied to the children – **63.3%**
- Don't know – **0.6%**
- No response – **0.0%**

24. If insect repellants are applied, what products are used? [Circle all that apply]

Percent Response	Yes	No	No response
No repellants applied to children at our center	63.3	36.7	--
Avon Skin-So-Soft	16.1	83.3	0.6
Bayrepel	0.6	98.9	0.6
Coppertone	7.8	91.7	0.6
Cutter	12.8	86.7	0.6
Off!	16.7	82.8	0.6
A home remedy	0.6	98.9	0.6
Other [See below]	16.7	82.8	0.6
Don't Know	2.2	97.8	0.6

24. Other responses:

- Only brands for children from parents – 1
- Unless parent signs med sheet – 1
- Whatever parents provide – 28

25. Please specify the **active ingredient** of the insect repellent used:

Percent Response	Yes	No	No response
No repellants applied to children at our center	63.9	33.9	2.2
DEET [N,N-diethyl-meta-toluamide]	8.9	88.9	2.2

Citronella, oil of citronella	1.1	96.7	2.2
Oil of lemon eucalyptus	2.2	95.6	2.2
Picaridin, Icaridin	0.6	97.2	2.2
Permethrin	0.6	97.2	2.2
No active ingredient listed	1.1	96.7	2.2
Other [See below]	4.4	93.3	2.2
Don't know	21.7	76.1	2.2

25. Other responses:

- **Mineral oil, isopropyl, palmitate – 1**
- **Varies – 2**
- **Whatever parent supplies – 5**

26. Are there pesticides (insecticides, herbicides or rodenticides) stored in your child care center?

Yes – 17.2% No – 75.0% Don't know – 6.7% No response – 1.1%

27. Where are pesticides (insecticides, herbicides or rodenticides) stored in your child care center?

- Pesticides, as defined above, are **not** stored in this child care center – **75.0%**
- In an area (room or cabinet) that locks with a padlock or key lock – **4.4%**
- In an area (room or cabinet) with a child proofing device – **2.8%**
- In an area (cabinet or shelf) not locked, but is at least 4 feet off ground – **4.4%**
- In an unlocked area that children are not allowed – **3.3%**
- In an unlocked room or cabinet - **0.6%**
- Other – **1.7%**
 - **In an area where children are not allowed, locked cabinet – 1**
 - **In First Aid bag – 1**
 - **Furnace / custodial room – 1**
- Don't know – **5.6%**
- No response – **2.2%**

28. **IF** pesticides (insecticides, rodenticides or herbicides) are stored on the child care center property, list products stored. **[14 LCCC LISTED ONE OR MORE PRODUCTS]**

Brand Name	Active Ingredient(s)	EPA Registration Number
Bayer Advanced Home Pest Control Indoor & Outdoor Insect Killer RTU	beta-cyfluthrin (0.05%)	72155-27
Boric acid	boric acid	Not given
Bug Out Yard Fogger	tetramethrin (0.25%), phenothrin (0.15%)	7056-99
Drax Ant Kill Gel	boric acid	9444-206
KRID Ant & Roach Killer	n-octyl bicycloheptene dicarboximide (0.25%), permethrin (0.2%), pyrethrins (0.05%)	8845-122-9688
Maxforce	hydramethylnon or fipronil	Not given
Off! for children		Not given
Off! Yard & Deck Repellent	permethrin, d-cis/trans allethrin	4822-394
Ortho Home Defense	bifenthrin (0.115%)	279-3240-239
Max Insect Killer Granules		Not given
Ortho Home Defense	chlorpyrifos, D-trans allethrin, n-octyl bicycloheptene, dicarboximide, piperonyl butoxide	Not given
Raid	tetramethrin, piperonyl butoxide	Not given
Raid	tetramethrin, permethrin	Not given
Raid	pyrethrins (0.2%), piperonyl butoxide (1%), n-octyl bicycloheptene dicarboximide, petroleum distillates	Not given
Raid Ant & Roach Killer	imiprothrin, cypermethrin	Not given
Rat and Mouse blocks	bromadiolone, 0.005%	Not given
Terro Ant Killer II	borax (5.4%)	149-8
Permethrin	permethin, piperonyl butoxide	Not given

28. Other single comments: **The herbicides I don't have on hand currently; Pest Control Indoor and Outdoor Insect Killer; Purchase as needed (usually Yard Guard or something like that; Multi-catch trap; Glue-type pads**

Disinfectants and cleaners

29. Is there a standard method used at your facility for disinfecting surfaces?
- Yes, oral instructions are given to new employees – **29.4%**
 - Yes, written instructions are posted – **35.0%**
 - Yes, both oral and written instructions are given – **34.4%**
 - No – **1.1%**

30. Is there a standard method used at your facility for general cleaning of surfaces?
- Yes, oral instructions are given to new employees – **36.1%**
 - Yes, written instructions are posted – **30.6%**
 - Yes, both oral and written instructions are given – **32.8%**
 - No – **0.6%**
31. How many chemical products are being used for surface 'cleaning' in your center?
- One: used for all areas – **56.1%**
 - Two: one for food preparation/eating areas and second for all other areas – **23.9%**
 - Three: one for food areas, a second for diapering and restroom surfaces, a third for toys and play areas – **15.0%**
 - Other – **3.3%**
 - **Bleach water; custodian uses what facility management provides – 1**
 - **Disinfect with bleach water after 2PM – 2**
 - **Multiple cleaners for multiple cleaning needs – 1**
 - **One for all surfaces and several for bathrooms, floors, sinks – 1**
 - **Two: one for cleaning, one for sanitizing – 1**
 - **Use soap and water and bleach solution – 1**
 - Don't know – **1.1%**
 - No response – **0.6%**
32. What process is followed for mixing **surface cleaners** from the concentrate?
- Product label directions are followed – **39.4%**
 - A 1 part concentrate: 1 part water ratio is always used – **6.7%**
 - A 1 part concentrate: 9 parts water ratio is always used – **22.2%**
 - Strength used is based on the need/situation – **6.1%**
 - Employees are not restricted in how product is diluted – **0.0%**
 - Other – **20.6%**
 - **¼ TBSP bleach to 10 TBSP water – 2**
 - **1 TBSP per quart bottle – 12**
 - **4 mL per Qt – 1**
 - **1/8 to ½ gallon – 1**
 - **Center employees don't mix concentrate – custodial personnel do – 2**
 - **DHS required bleach water – 1**
 - **Don't mix – 1**
 - **Follow State guidelines – 1**
 - **Follow State recommendations for bleach mixing – 4**
 - **Formula in DHS Standards – ¼ c. bleach to 1-gallon water – 6**
 - **Soapy water, water, bleach water – 1**
 - **Use bleach/water mixture – 4**
 - **We use Ecolab products mixed with water – 1**
 - Don't know – **3.3%**
 - No response – **1.7%**

33. What process is followed for mixing **disinfectants** from the concentrate?

- Product label directions are followed – **44.4%**
- A 1 part concentrate: 1 part water ratio is always used – **6.7%**
- A 1 part concentrate: 9 parts water ratio is always used – **17.8%**
- Strength used is based on the need/situation – **4.4%**
- Employees are not restricted in how product is diluted – **0.0%**
- Other – **16.1%**
 - ¼ TBSP bleach to 10 TBSP water – 2
 - 1 TBSP per quart bottle – 10
 - ¼ c. bleach to 1 gal water – 2
 - 4 mL per Qt – 1
 - 10:1 – 1
 - DHS required bleach water – 1
 - Don't mix – 1
 - Ecolab products – 1
 - Follow State guidelines – 1
 - Mixed by custodian – 1
 - Only use bleach/water State guidelines – 3
 - Use bleach/water mixture – 4
 - Use diluted bleach water using State suggested amounts – 4
- Don't know – **4.4%**
- No response – **6.1%**

34. To be properly washed, I think that hands should be scrubbed with soap and rinsed with water for at least:

Response	Percent
10 seconds	4.4
15-20 seconds (Sing the Birthday Song)	17.2
30 seconds	41.1
45 seconds	7.8
60 seconds (1 minute)	21.1
1½ minutes	3.9
2 minutes or longer	1.7
Don't know	0.6
No response	2.2

35. How long do you let a disinfectant stay on a diapering surface before re-using the surface?

Response	Percent
10 seconds	4.4
15 seconds	1.1
30 seconds	2.8
45 seconds	1.1
60 seconds (1 minute)	15.6
1½ minutes	1.1
2 minutes or longer	40.0
NA, don't diaper	24.4
Don't know	8.3
No response	1.1

36. How long do you immerse a toy in an approved bleach solution before air drying?

Response	Percent
10 seconds	6.7
15 seconds	2.2
30 seconds	7.2
45 seconds	1.7
60 seconds (1 minute)	28.9
1½ minutes	2.8
2 minutes or longer	37.2
Don't know	10.6
No response	2.8

37. Does your child care center regularly use **disinfectant** products in the following areas? [Respondent was asked to circle one response for each line.]

Percent Response	Yes	No	Don't know	No response
a. Kitchen/ food preparation	90.6	3.3	2.8	3.3
b. Table/eating area	97.8	1.1	0.6	0.6
c. Food storage	66.1	20.6	5.6	7.8
d. Classroom	93.9	2.8	1.1	2.2
e. Wash basins	92.8	3.3	2.8	1.1
f. Bathrooms	93.9	0.6	3.9	1.7
g. Water fountains	68.3	8.3	8.9	14.4
h. Director's office	51.7	27.2	8.3	12.8
i. Diaper changing surfaces	61.7	2.2	4.4	7.2
** Not Applicable – 24.4%				
j. Other [See below]	7.2	10.6	7.8	74.4

37. Other responses:

- **All phones, doorknobs, and computers – 1**
- **Any general cleaning – 1**
- **Doorknobs – 1**
- **Gym and outdoor toys – 1**
- **Hallways – 1**
- **Play area – 1**
- **Phones, doorknobs, cubbies and chairs – 1**
- **Toys – 1**

38. **IF** disinfectants and surface cleaners are used and stored on the child care center property, list products. **IF NOT**, leave the following blank.

Brand Name	No. of Entries	Active Ingredient(s)
3M Glass Cleaner	1	
3M Restroom Cleaner	1	
Ajax	1	
Ajax Powder with bleach	1	calcium carbonate, sodium carbonate, anionic surfactants, bleach quality control agents
Alpet D	1	
Ammonia	1	
Ani Blue Plus	1	n-alkyl dimethyl benzyl ammonium chloride
Antibacterial soap	1	triclosan
Awesome	1	
Basic 6 (Shaklee)	1	
Beco Deep Blue Glass cleaner	1	butoxyethanol ammonium hydroxide
Betreevr	1	
Bleach, generic	68	sodium hypochlorite
Carpet Pre-Treat	1	
Carpet Rinse Plus	1	
Cascade	1	
Cleaner	1	dimethyl benzyl ammonium chloride
Clorox Anywhere	5	
Clorox Anywhere Hard Surface	2	sodium hypochlorite
Clorox Bleach	62	sodium hypochlorite
Clorox Cleanup	2	sodium hypochlorite
Clorox surface cleaner	2	
Clorox wipes	7	n-alkyl dimethyl benzyl ammonium chlorides
Comet	5	
Consume	1	nonylphenol ethoxylate
Coverage Plus NPD	1	octyl decyl ammonium chloride, dioctyl dimethyl ammonium chloride, didecyl dimethyl ammonium chloride, alkyl...
Crew Bowl cleaner	1	sodium chloride
Dawn Dish Liquid soap	5	biodegradable surfactants
Dishmate	1	thyme oil (Earth Friendly Products)
Dish soap	1	
Dishwashing Disinfectant	1	alkyl dimethyl ethyl benzyl ammonium chlorides
DMQ	1	
Dow Bathroom spray	1	
Dreft Laundry detergent	1	
Ecolab Grease Cutter Plus	1	ethanolamine, cocobetaine, sodium hydroxide, sodium gluconate

Ecolab Micro Quat Germicide	1	alkyl dimethyl benzyl ammonium chloride
Ecolab Oasis Glass cleaner	1	
Ecolab Oasis Neutral Disinfectant	1	didecyl dimethyl ammonium chloride, n-alkyl dimethyl benzyl ammonium chloride
Ecolab SterBacBlue	1	n-alkyl dimethyl ammonium chloride
Enviro-Care Disinfectant	1	
Expo White Board Cleaner	1	2-butoxyethanol/acetate, isopropyl alcohol
F25 Sanitizer	1	
Fast and Easy	2	propylene glycol n-propylether
Foaming Disinfectant	1	
Formula 409	4	alkyl dimethyl benzyl ammonium chloride
Germ-X	1	ethyl alcohol
Germicide	1	
Glass cleaner	2	
Goo-Gone spray gel	2	petroleum distillates, nonionic detergents
Greased Lightning	1	alkyl dimethyl benzyl ammonium chlorides
Great Value	1	
Green Earth	1	propylene glycol, n-butyl ether, tripropylene glycol methylether
Hy-Vee Bathroom cleaner	1	ammonium chlorides
Kitchen cleaners	1	
Lysol	14	alkyl/dimethyl benzyl ammonium saccharinate
Lysol All-Purpose cleaner	2	dimethyl benzyl ammonium chlorides
Lysol Antibacterial Kitchen cleaner	1	alkyl dimethyl benzyl ammonium ...
Lysol Disinfectant	1	sodium hypochlorite
Lysol Toilet Bowl cleaner	4	quaternium ammonium compounds
Lysol Wipes	3	alkyl dimethyl benzyl ammonium chlorides
Melaleuca Solugard	1	
Melaleuca Solumel	1	
Melaleuca Tough-N-Tender	1	
Melaleuca Tub-N-Tile	1	
Mr. Clean	3	sodium hydroxide
Mr. Clean Antibacterial	1	
Mr. Clean Eraser	1	
Mr. Clean Multi-surfaces	1	alcohol ethoxylates
N601	1	ammonium chloride
Neutral cleaner	1	sodium sesquicarbonate
Odoban	1	

PineSol	4	pine oil
Q.A.	2	dimethyl benzyl ammonium chlorides
Power	1	dimethyl ethyl benzyl ammonium chloride
PowerOff	1	
Pro-Power Bowl cleaner	1	hydrochloric acid, nonoxynol
Pro-Power Foaming Disinfectant cleaner	1	n-alkyl dimethyl ethyl benzyl ammonium chloride
Pro-Power Heavy Duty Degreaser	1	butyl cellosolve, nonoxynol, potassium hydroxide, trisodium nitrilotriacetate
Professional cleaning sink product	1	
Pure Citrus	1	
Ringmaster	1	hydrochloric acid, phosphoric acid
Rubbing alcohol	1	isopropyl alcohol
Sani-Spritz	1	ammonium chloride
Sani-T-10	4	N-alkyl dimethyl benzyl ammonium chloride, dimethyl ethyl benzyl ammonium chloride
Sani-tyze	1	
Scrubbing Bubbles Bathroom cleaner	1	dimethyl benzyl ammonium chlorides
Shout Stain Remover	1	
Simple Green	1	
Slick Finish	1	propane
Soft Scrub	4	sodium hypochlorite; calcium carbonate
Sol-U-Gard Botanical disinfectant	1	tea tree oil (Melaleuca Inc.)
Spanding	1	hydrogen chloride
Spic and Span	1	
SSS Foam Disinfectant Cleaner, Deodorizer	1	N-alkyl dimethyl benzyl ammonium chlorides
The Works, Ammonia Free	1	dimethyl benzyl ammonium saccharinate, ethanol
The Works Toilet Bowl Cleaner	1	
Tide Laundry detergent	1	
Tough Duty	1	monoethanolamine
Triple	1	
UNO	1	ammonium chloride
Windex	8	ammonia; butoxyethanol
Windex Antibacterial	1	isopropanol, propylene glycol
Zep Spirt	1	
None listed	35	

38. Other responses: **Janitors disinfect many areas; not sure what they use; sorry – 1**

Notification and posting

39. On the average, how long do you keep children and adults out of treated areas after an insecticide application *inside* your child care center?

- Less than an hour – **2.8%**
- 1-4 hours – **5.0%**
- 5-8 hours – **1.1%**
- 9-12 hours – **5.0%**
- 12-24 hours – **20.0%**
- Not restricted following treatment – **10.0%**
- Not applicable/ Do not use – **14.4%**
- Other – **12.8%**
 - **48 hours, over a weekend – 4**
 - **48+ hours – 3**
 - **As instructed by professional – 3**
 - **Children are never in treated area – 4**
 - **Depends on label instructions - 1**
 - **Do it at closing of center – 1**
 - **Haven't done it yet – 1**
 - **Janitorial staff is responsible for all applications and informing center and high school staff – 1**
 - **Not treated in high traffic areas, children are not ever allowed in area – 1**
 - **Only applied in basement – 1**
 - **Only done when school is not in session – so days or weeks – 1**
 - **Only in summer – 1**
 - **When children are gone for extended periods – 1**
- Don't know – **20.6%**
- No response – **8.3%**

40. On the average, how long do you keep children and adults out of treated areas after an insecticide or herbicide application *outside* on child care center property?

- Less than an hour – **0.0%**
- 1-4 hours – **7.2%**
- 5-8 hours – **0.6%**
- 9-12 hours – **3.3%**
- 12-24 hours – **27.2%**
- Not restricted following treatment – **5.0%**
- Not applicable/ Do not use – **8.9%**
- Other – **19.4%**
 - **24 – 48 hours off lawn or however long recommended when posted – 1**
 - **24 hours plus – 1**
 - **48 hours over weekend – 12**
 - **48 hours – 6**
 - **48 to 72 hours – 1**
 - **3 days – 1**
 - **As needed – 1**
 - **As instructed by professional – 3**
 - **Don't have playground – 2**
 - **Don't play outside when they spray – 1**

- Follow product guidelines/ label recommendation – 2
- Haven't done it yet – 1
- Herbicide only applied during summer when school is not in session (no children) – 2
- Only when school not in session (days or weeks) – 1
- Don't know – 20.0%
- No response – 8.3%

41. What type of “notification of pesticide use” does the child care center provide for *inside* insecticide or rodenticide applications?

Percent Response	Yes	No	No response
Insecticides and rodenticides are <i>not</i> used in the child care center	23.9	72.8	3.3
None	35.0	61.7	3.3
Pre-treatment written notices given to staff and parents	1.1	95.6	3.3
Post-treatment written notices given to staff and parents	1.1	95.6	3.3
Signs are posted at child care center entrances	5.6	91.1	3.3
Signs are posted in the room(s) treated	2.8	93.9	3.3
Oral notices are given to staff and parents	7.8	88.9	3.3
Other [See below]	6.1	90.6	3.3
Don't know	18.3	78.3	3.3

41. Other responses:

- Done in the off season – 1
- Done on weekend – 1
- Done outside business hours – 1
- During summer – 1
- Glue Traps used – 1
- Information in handbooks – 1
- Located at churches – 1
- None used – 3
- Treatment done at closing of day – 1

42. What type of “notification of pesticide use” does the child care provide for **outside** herbicide or insecticide applications?

Percent Response	Yes	No	No response
Insecticides and herbicides are not used in the child care center	17.2	78.3	4.4
None	25.6	70.0	4.4
Pre-treatment written notices given to staff and parents	1.1	94.4	4.4
Post-treatment written notices given to staff and parents	1.1	94.4	4.4
Signs are posted at child care center entrances	7.8	87.8	4.4
Special “Pesticide Application” signs posted in lawns at property entrances	16.1	79.4	4.4
Oral notices are given to staff and parents	8.9	86.7	4.4
Other [See below]	3.9	91.7	4.4
Don't know	20.6	75.0	4.4

42. Other responses: **Done in off season – 1; Done outside of business hours – 1; During summer – 1; Church location – 1; In handbooks – 1; Treatment done on weekend only – 2**

General pesticide knowledge

43. I view the label on a pesticide product as...

- A general guideline – **60.6%**
- A detailed advertisement – **1.1%**
- A legal, binding document – **13.9%**
- Extra information for those interested – **1.7%**
- Don't know – **12.8%**
- No response – **10.0%**

44. If a pesticide is NOT used according to label directions, I believe the following has the primary legal responsibility (liability):

- The manufacturer – **0.6%**
- The sales person – **0.0%**
- The applicator – **77.8%**
- Don't know – **12.8%**
- No response – **8.9%**

45. BEFORE I use a pesticide, the most important activity is to...

- Read & understand the label – **78.3%**
- Shake the container – **0.0%**
- Put on protective gloves – **4.4%**
- Take the container outside to open – **1.1%**
- Don't know – **6.7%**
- No response – **9.4%**

46. Federal law states that all pesticides must be classified. Which of the following classifications do you think satisfies the law?

- Safe vs. toxic – **37.2%**
- General use vs. restricted use – **15.2%**
- Synthetic vs. natural – **0.0%**
- Broad spectrum vs. specific target pest – **3.3%**
- Don't know – **33.3%**
- No response – **10.0%**

47. Do you agree with the following statement? "Reading the pesticide label is the best way for a person to know how to be protected from possible toxic effects of the product."

- Strongly agree – **38.3%**
- Agree – **40.0%**
- Disagree – **3.9%**
- Strongly disagree – **2.2%**
- Don't know – **7.8%**
- No response – **7.8%**

48. The label on a pesticide contains a "signal word" that tells you how poisonous the product is to humans. Which signal word do you think would be found on the most poisonous (hazardous) pesticide?

- Warning – **23.3%**
- Danger – **56.1%**
- Caution – **4.4%**
- Don't know – **8.3%**
- No response – **7.8%**

49. When I buy a **disinfectant** chemical, I am looking for a product that...

- kills bacteria – **45.6%**
- kills all microorganisms – **25.6%**
- reduces microorganisms below a health hazard level – **7.8%**
- inactivates microorganisms – **3.3%**
- Don't know – **10.6%**
- No response – **7.2%**

50. When I buy a **sanitizing** chemical, I am looking for a product that...

- Kills bacteria – **42.8%**
- Kills all microorganisms – **25.6%**
- Reduces microorganisms below hazard level – **11.1%**
- Inactivates microorganisms – **2.2%**
- Don't know – **11.7%**
- No response – **6.7%**

Source of pesticide information
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51. Integrated Pest Management (IPM) is a systematic approach to keeping pests below harmful levels. It uses a variety of methods for monitoring and managing pests, and often minimizes the use of chemicals. Are you familiar with IPM?

Yes –5.0% No – 88.9% No response – 6.1%

52. If question #51 was YES, how did you learn of IPM? Please circle all that apply.

Percent Response	Yes	No	No response
Pest control professional	1.7	92.2	6.1
University/Extension service	1.7	92.2	6.1
Independent reading	--	93.9	6.1
Professional colleague or society	--	93.9	6.1
Media sources	--	93.9	6.1
I answered NO to question #51	88.9	5.0	6.1
Other [See below]	1.7	92.2	6.1

52. Other responses: **I use it in my home – 1; Parent – 1; Previous employment an accredited child care center – 1**

53. If question was #51 NO, how can this information be made available to you to best meet your center's needs and your work schedule? Please circle all that apply.

Percent Response	Yes	No	No response
Quarterly pest management newsletters	26.1	64.4	9.4
Informational meeting or workshop	13.3	77.2	9.4
Educational materials mailed to you for review	42.8	47.8	9.4
Web sites	22.8	67.8	9.4
Participate in a pilot program for one year	5.0	85.6	9.4
I am not interested in learning about IPM at this time	17.2	73.3	9.4
I answered YES to question #51	5.0	85.6	9.4
Other	--	90.6	9.4

You and Your Background

54. The use of pesticides inside **my home** is best summarized in the following statement:

- I do not use any type of pesticides at home – **21.7%**
- I only use disinfectants at home – **25.6%**
- I use various pesticides (disinfectants, insecticides, rodenticides) at home – **47.2%**
- Don't know – **4.2%**
- No response – **1.1%**

55. My tolerance for pests **at home** is best described in the following statement:

- I am not concerned about having pests in my home – **7.2%**
- I do not mind having a few pests in my home – **39.4%**
- I will not accept having any pests in my home – **50.0%**
- Don't know – **2.2%**
- No response – **1.1%**

56. My tolerance for pests **at work** is best described in the following statement:

- I am not concerned about having pests in my work place – **5.6%**
- I do not mind having a few pests in my work place – **27.8%**
- I will not accept having any pests in my work place – **62.2%**
- Don't know – **2.8%**
- No response – **1.7%**

About your center

57. When is this facility open?

Opening Time – **mode 6:00 am**

Closing Time – **mode 6:00 pm**

Response	Percent
Tuesday only	0.6
Friday only	0.6
Monday through Thursday	7.2
Monday through Friday	83.3
Monday through Saturday	0.6
Tuesday/Thursday only	1.1
Sunday through Saturday	0.6
Monday/Wednesday/Friday only	2.8
No response	3.3

58. What is the age range of children in this facility?

Minimum age (range: 2 weeks to 5 years; mean: 1 year 8 months)

Maximum age (range: 3 years to 17 years; mean: 8 years 3 months)

Most common categories:

- 2 weeks to 12 years – 5.5%**
- 6 weeks to 5 years – 7.2%**
- 6 weeks to 12 years – 16.7%**
- 3 years to 5 years – 30.0%**
- 3 years to 12 years – 2.7%**
- 5 years to 12 years – 2.7%**
- Other – 35.2%**

59. What is the **licensed capacity** for this child care center, as specified on your license?

Maximum: 350 children Mean capacity: 62.21 children

60. What is your position at the child care center?

- Director – **72.2%**
- Associate/Assistant Director/On-site Supervisor – **6.7%**
- Teacher/Teacher Associate/Caregiver – **6.7%**
- Cook/Kitchen helper – **0.6%**
- Custodian – **0.0%**
- Director/Teacher – **8.3%**
- Other responses – **5.6%**
 - **Owner/Office Manager – 1**
 - **Owner – 2**
 - **Child Care Program Supervisor – 1**
 - **Site Coordinator – 1**
 - **Health and Disabilities Specialist – 1**
 - **Facility Administration Secretary – 1**
 - **Program Manager – 1**
 - **Supervisor Children’s Services, Area Substance Abuse Council – 1**
 - **Not Specified – 1**
- No response – **0.0%**

61. What **primary** land use is directly adjacent to this child care center?

Agricultural – 3.3%	Commercial – 13.3%
Forest – 1.1%	Recreational – 5.0%
Residential – 56.7%	Other (see below) – 18.9%
Industrial – 1.7%	Don’t know – 0.0%

61. Other responses:

- **Agricultural and commercial – 1**
- **Agricultural and Industrial – 1**
- **Agricultural and Recreational – 1**
- **Agricultural and Residential – 5**
- **Agricultural, Residential, and Commercial – 1**
- **Church – 1**
- **College Campus – 1**
- **Educational – 2**
- **Forest and Residential – 1**
- **Hospital – 1**
- **Industrial and Commercial – 1**
- **Residential and Commercial – 8**
- **Recreational and Commercial – 1**
- **School Playground – 1**
- **School – 7**
- **Varies (multiple sites) – 2**

62. Who decides what chemicals will be purchased for use in the center?

Percent Response	Yes	No	No response
Director	50.0	48.9	1.1
Associate/Assistant Director/On-site Supervisor	2.8	96.1	1.1
Teacher	--	98.9	1.1
Custodian	23.3	75.6	1.1
Corporate/Regional office	7.8	91.1	1.1
Other [See below]	32.8	66.1	1.1
Don't know	1.1	97.8	1.1

62. Other responses:

- Owner – 8**
- Church official – 2**
- CFO, Maintenance – 1**
- Board – 8**
- Landlord – 2**
- Administrator – 1**
- Site Coordinator – 1**
- Pastor – 1**
- City – 1**
- Varies according to circumstance – 1**
- School district, licensing recommendations – 2**
- Campus grounds, maintenance – 1**
- Director's husband who does maintenance – 1**
- Front-line Staff, health specialist, center managers – 1**
- Owner/Board of Directors – 1**
- Pesticides: Church Trustees, Disinfectants: Director & Custodian – 1**
- DHS will only allow Clorox Brand Bleach and Clorox anywhere – 1**
- Executive Director/Purchasing – 1**
- Director of Operations for the Agency (but I, as the Supervisor of Children's Services, choose sanitizers, i.e. bleach and detergent) – 1**
- Owner/office manager – 1**
- Hospital – 2**
- Property Committee – 1**
- School officials – 4**
- Facility Manager – 1**
- Pest Control – 3**
- Church board – 2**
- Committee – 1**
- Maintenance Supervisor – 1**

63. What criteria do you think are used to determine the purchase of chemicals for use in the center? [Circle all that apply]

Percent Response	Yes	No	No response
Cost	41.1	57.2	1.7
Ease of use	30.0	68.3	1.7
Effectiveness	57.8	40.6	1.7
Safety	67.2	31.1	1.7
Recommendation of colleague	4.4	93.9	1.7
Recommendation of chemical supplier	18.3	80.0	1.7
Other [See below]	8.3	90.0	1.7
Don't know	12.8	85.6	1.7

63. Other responses:

- Environmentally friendly – 1
- Government contract – 1
- Head Start policies – 1
- State guidelines/NAEYC – 1
- State licenser/licensing consultant – 2
- State requirement and soft soap directions – 2
- Recommendations from State – 1
- Recommended by DHS consultant – 3
- Need – 1
- We use Orkin services – 1
- Janitorial knowledge – 1

64. In what form are *disinfectant* chemicals purchased? [Circle all that apply]

Percent Response	Yes	No	No response
Liquid concentrate	68.3	30.0	1.7
Powdered concentrate	1.1	97.2	1.7
Liquid ready-to-use	35.6	62.8	1.7
Aerosol	17.2	81.1	1.7
Other: Wipes – 1	0.6	97.8	1.7
Don't Know	11.1	87.2	1.7

65. In what form are **cleaning** chemicals purchased? [Circle all that apply]

Percent Response	Yes	No	No response
Liquid concentrate	66.1	32.2	1.7
Powdered concentrate	5.0	93.3	1.7
Liquid ready-to-use	42.2	56.1	1.7
Aerosol	14.4	83.9	1.7
Other Clorox wipes – 1; Not specified – 1	1.7	96.7	1.7
Don't Know	9.4	88.9	1.7

66. What personal protective equipment is provided to employees when using chemicals? [Circle all that apply]

Percent Response	Yes	No	No response
Latex gloves	79.4	19.4	1.1
Chemically resistant gloves	11.7	87.2	1.1
Safety glasses	9.4	89.4	1.1
Disposable dust mask	4.4	94.4	1.1
Apron	22.8	76.1	1.1
Those specified on product label	11.7	87.2	1.1
Personal protective equipment is employee's responsibility	2.2	96.7	1.1
Other [See below]	2.8	96.1	1.1
Don't Know	7.2	91.7	1.1

66. Other responses

- **None – 1**
- **Product used doesn't require these measures – 1**
- **Rubber gloves – 1**
- **Staff doesn't use chemical product except bleach water – 1**
- **Vinyl gloves – 1**