

Overview of Health Core Education

▶ Topics

June 2018

NCFHP

Outreach Worker Training

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Topics Covered

Pesticides

Green Tobacco Sickness

Heat Illness

Mental Health

Sexually Transmitted Diseases

Urgencies and Emergencies

How to take blood pressure

Definition of Pesticides

- ▶ Herbicides
- ▶ Nematocides
- ▶ Rodenticides
- ▶ Insecticides
- ▶ Fungicides
- ▶ Fumigants



Recognition of Pesticide Poisoning



Acute Effects

Onset within 24 hours

Chronic Effects

Hard to prove

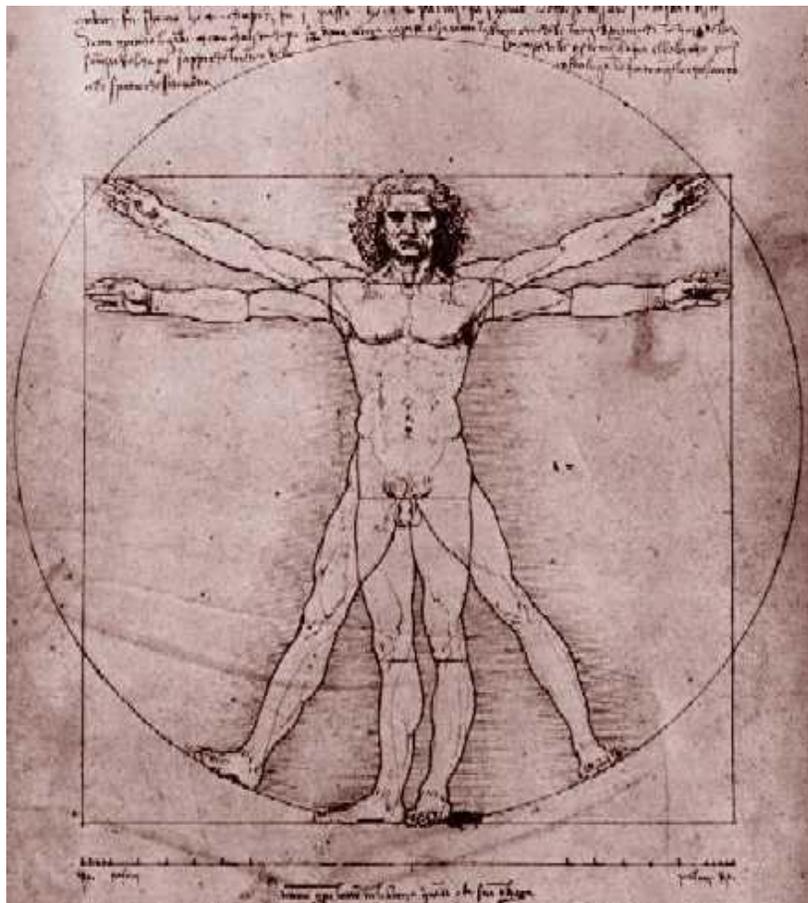
Pesticide Mixers and Applicators at highest risk of poisoning

Must ask about specific tasks!

Routes of exposure

- ▶ **Ingestion** (accidental: often from reusing container or putting pesticide in another container such as a soda bottle, failing to wash hands before eating. Intentional: suicide attempt)
- ▶ **Inhalation** (fumigants, or drift while adjacent field is sprayed)
- ▶ **Absorption** through skin or eyes (drift or brushing against sprayed plant)

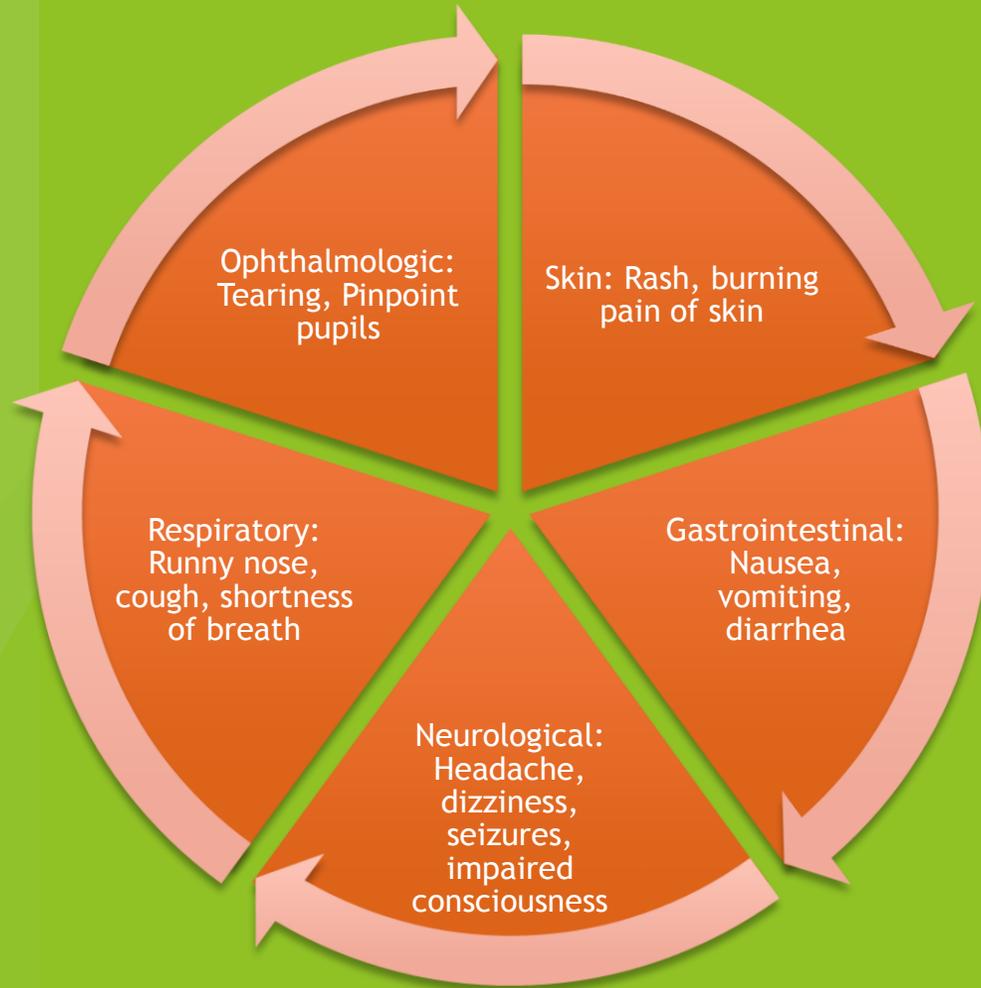




Relative Absorption of different types of skin

➤ Foot arch	1
➤ Palm	6 X
➤ Forearm	8 X
➤ Back	12 X
➤ Scalp	25 X
➤ Armpit	26 X
➤ Forehead	43 X
➤ Scrotum	300 X

Common Acute Symptoms (all very non- specific!)



How to
protect from
exposure:

Skin

Gastrointestinal

Respiratory

Ophthalmologic

Organophosphate and Carbamate Pesticide Poisoning

- ❑ Both produce symptoms of “All Faucets On”
 - ▶ Increased salivation, drooling, urinating
 - ▶ Runny nose, tearing, sweating
 - ▶ Vomiting and diarrhea
- ▶ Other symptoms
 - ▶ Dizziness, difficulty breathing, unconsciousness
 - ▶ Pinpoint pupils



Common
Organophosphate
or Carbamate
Pesticides

Apples: Lorsban, Dimethoate, Guthion,
Imidan, Sevin

Christmas Trees: Di-syston, Lorsban

Cucumbers: Lannate, Diazinon, Sevin

Green Peppers: Dimethoate, Orthene,
Lannate, Malathion

Sweet Potatoes: Sevin XLR Plus, Malathion

Tobacco: Orthene, Lannate

Possible Long term or Persistent Effects

Infertility, miscarriage, birth defects

Neuro-developmental effects on children such as ADHD and autism, Parkinson's in adults

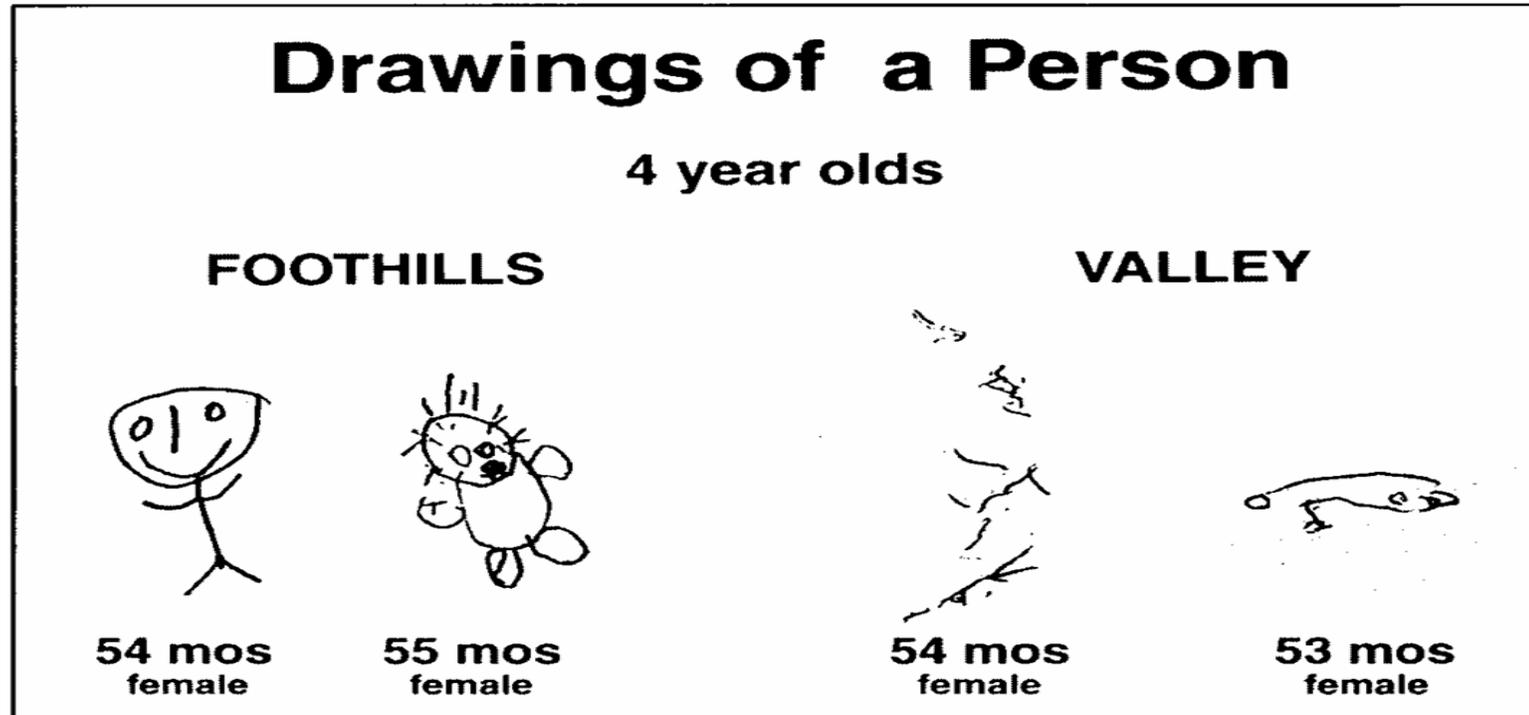
Neurological problems: Numbness, weakness, difficulty walking

Cancer in children (leukemia and brain tumors)

Cancer in adults (non-Hodgkin lymphoma, leukemia, prostate cancer, renal cell cancer)

Asthma

Chronic effects in child development



An anthropological approach to the evaluation of preschool children exposed to pesticides in Mexico. [E A Guillette](#), [M M Meza](#), [M G Aquilar](#), [A D Soto](#), and [I E Garcia](#), Environ Health Perspect. Jun 1998; 106(6): 347-353.

Carlitos



Tomatoland: How Modern Industrial Agriculture Destroyed Our Most Alluring Fruit by Barry Estabrook, published by Andrews McMeel Publishing



Pesticide Resources

Free from EPA, order online

Free full text online

Clinically oriented, one section starts with symptoms and works back to possible responsible pesticide

Emergency Management of Acute Exposure (always protect yourself first)

Wash, wash, wash with soap and water!

If in eyes - irrigate continuously for 15 minutes

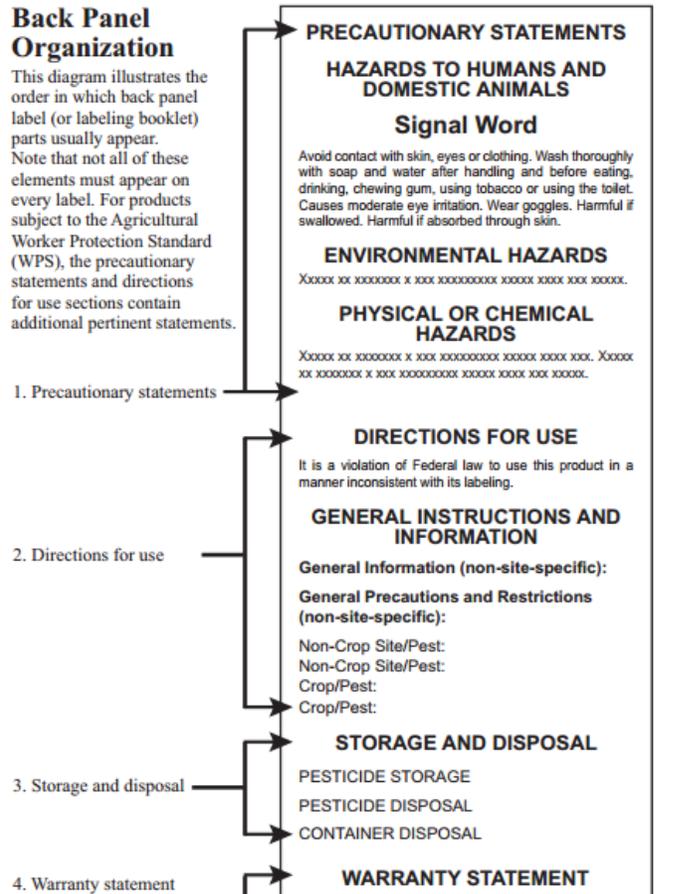
Remove contaminated clothing ASAP

If inhaled, remove farmworker to fresh air if possible to do safely. May need respirator to enter area safely.

Back Panel Organization

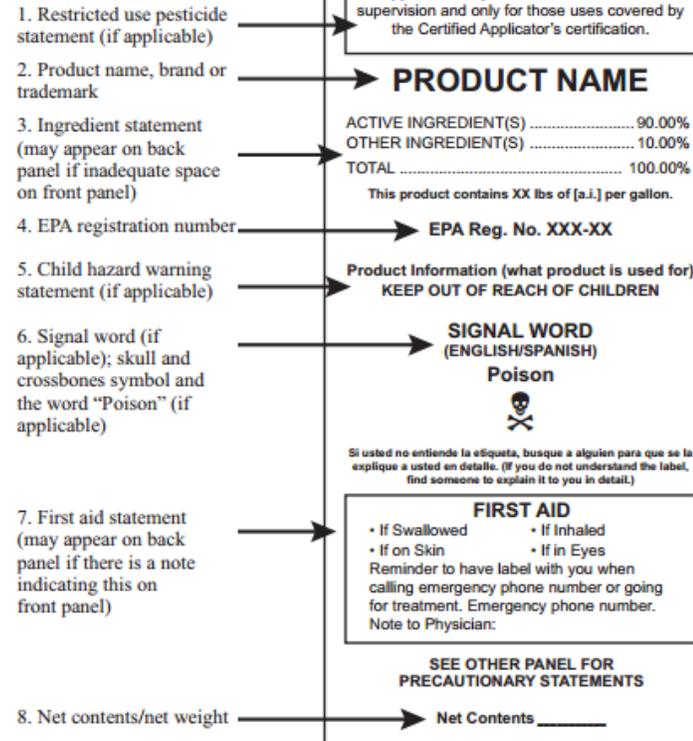
This diagram illustrates the order in which back panel label (or labeling booklet) parts usually appear.

Note that not all of these elements must appear on every label. For products subject to the Agricultural Worker Protection Standard (WPS), the precautionary statements and directions for use sections contain additional pertinent statements.



Front Panel Organization

This diagram illustrates the order in which front panel label parts usually appear. Note that not all of the elements must appear on every label.



The label is the law

Follow up to Acute Exposure

Protect yourself from exposure while helping farmworker

Call Poison Control Center
1(800)222-1222 for advice

GET THE LABEL!!

Fill out NCFHP Acute Illness response form (AIR form)

Agricultural Worker Protection Standard mandates employers to release information about chemicals involved in an exposure to Healthcare Providers - you should inform the provider of this if patient seeks medical care

- ▶ Wash hands before eating or smoking
- ▶ Wash hands **before** toileting (and after!)
- ▶ Change clothes and wash hands before going home to family, take shoes off outside
- ▶ Wash clothes separately from family's clothes
- ▶ Observe Restricted Entry Intervals (grower is obligated to post on field). Ranges from 12 to 72 hours depending on the toxicity of the pesticide.
- ▶ Wear personal protective equipment (label will describe required PPE for mixers and applicators)

To reduce
chronic
exposure

Worker Protection Standard (Federal Law)

Growers must:

Provide Pesticide safety training for pesticide handlers and field workers

Post warnings

Observe Restricted Entry Intervals

Minimum of 12 hours, 72 hours for toxic pesticides

Provide Decontamination, emergency transportation

Transport to medical care

Give information to worker and medical personnel in case of suspected injury

Provide Personal Protective Equipment (PPE) as specified by label

Use non-technical terms and language workers can understand

Answer workers' questions



Personal Protective Equipment (PPE) may include:

- ▶ Respirator
- ▶ Butyl rubber gloves
- ▶ Rubber apron
- ▶ More commonly: long sleeves, long pants, shoes, socks, hat

Acute Pesticide Poisoning=Exposure+Symptoms

- ▶ **Healthcare providers in NC are legally obligated** to report acute pesticide poisoning within 48 hours of seeing the patient
 - ▶ Can be reported without the farmworker's identifying information
 - ▶ Outreach worker can and should help
 - ▶ Outreach worker should fill out and share with provider the NCFHP Acute Illness Report (AIR) Form which will aid provider in reporting

--Complete if patient had symptoms after exposure--

Fax completed form to NC Farmworker Health Program: (919) 733-2981 or call NCFHP (919) 527-6440

If you have the patient's consent, record their contact information:

Patient Name: _____ Date of Birth: _____ Patient Phone: _____

Employer name and/or Camp location: _____

Name of person completing form: _____ Today's date: _____

Program or clinic affiliation: _____ Phone number: _____

Describe the situation with as much detail as possible:

Symptoms/Síntomas (Check all that apply)

- Fatigue/Fatiga, Headache/Dolor de Cabeza, Blurred Vision/Visión Borrosa, Vomiting/Vómito, Difficulty Breathing, Dificultad para Respirar, Excessive Perspiration/Exceso de sudor, Pinpoint pupils/Pupilas pequeñas, Muscle Cramps/Calambres, Loss of Consciousness/Pérdida del Conocimiento, Excessive Salivation/Babeo excesivo, Dizziness/Mareo, Stomach Ache/Dolor de Estómago, Diarrhea/Diarrea, Shaking/Temblores, Loss of Appetite/Pérdida de Apetito, Confusion/Confusión, Anxiety/Ansiedad, Rashes/Ronchas, Convulsions/Convulsiones, Otro: _____

Additional Details/Detalles Adicionales

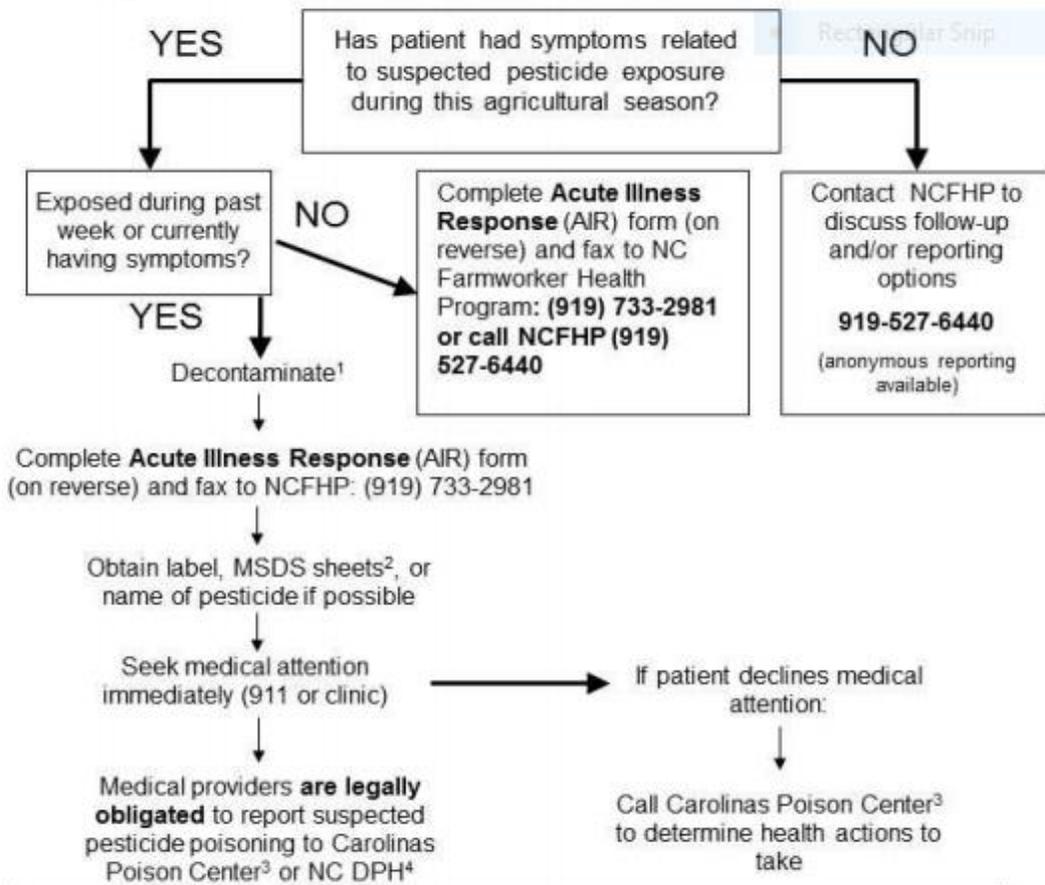
- 1. What were you doing when you started feeling ill? 2. What day and time did you start feeling ill? 3. Do you think you were exposed to a pesticide? 3a. When did the exposure start? 3b. How long did it last? 4. Do you know the location of the field you were working in when you got sick? 5. Are there any landmarks that can be used to identify the field you were working in? 6. Do you have the clothing you wore in the field? 7. Do you know what chemicals were applied to the fields/crops where you were working? 8. Did you see anyone applying anything to the fields where you were working? 9. Do you know where we can get a label of the chemicals that were being used? 10. Did any other workers get sick at the same time as you? 11. Are you pregnant? 12. Do you live with someone who is pregnant? 13. Do you live with any children under age 5?

Acute pesticide exposure suspected? Seek medical attention and/or call Carolinas Poison Center: 1-800-222-1222

NC DPH Pesticide Reporting (919) 707 - 5940 or http://www.epi.state.nc.us/epi/oii.html

Cholinesterase testing appropriate? (within 72 hrs?) Collect clothing sample? Rev Jan 2016

Responding to Pesticide Exposures



IN ALL CASES: Protect yourself from exposure while assisting a client. Ask patient if they want to report the incident and whether or not they prefer report to be anonymous. Explain reporting options: NC Department of Agriculture (anonymous reporting possible; see NCFHP) and/or NC Division of Public Health (for surveillance purposes only, may contact patient for follow-up). Provide health education and follow up as needed.

¹To decontaminate, remove clothes, then wash or shower with soap and water. If pesticide in eyes, rinse 15 minutes.

²Material Safety Data Sheets

³Carolinas Poison Center: 1-800-222-1222

⁴NC Division of Public Health: (919) 707 - 5940 / http://www.epi.state.nc.us/epi/pest/toreport.html

Reporting Acute Pesticide Poisoning

Provider or Outreach worker can report by calling:

Poison Control Center
1-800-222-1222

Report may trigger an investigation by NC Dept of Public Health and possibly a report to the NC Dept of Agriculture

Discuss with farmworker if they are willing to have name disclosed

Reporting Pesticide Violations

Anyone can report

Reports can be made to Department of Agriculture
919-733-3556 (May result in a fine)

Can report exposures without poisoning (or symptoms)

Can report anonymously to FAN which will trigger a
“routine inspection” by Department of Agriculture

Can call NCFHP for advice and to discuss options

AT&T LTE 8:41 AM 96%



698-66



No coma en el campo o en areas donde se guardan los pesticidas. Recuerde que no siempre puede ver, oler o probar los pesticidas.

Fri, Feb 23, 4:25 PM

El contacto con los pesticidas puede causarle dolores de cabeza, mareos, diarrea, vomito, irritacion en la piel y otros sintomas.

Sun, Feb 25, 5:05 PM

Siempre deberia saber cuales campos han sido fumigados y cuando es seguro volver a entrar.



Text Message



Health Education Text4Health

Text "AVISOS" to 69866