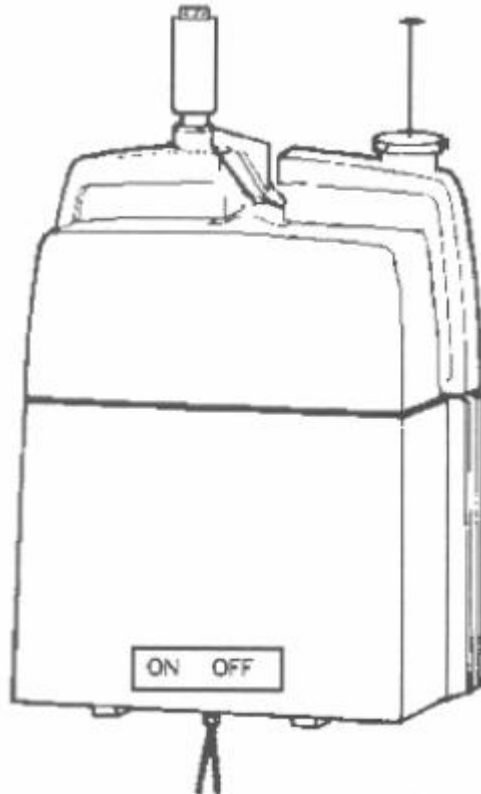


Compu-Spray Instruction Manual For Canada

Read All Instructions



CAUTION

- Follow pesticide label instructions carefully.
- Activate device one to two hours prior to use of yard.
- Switch off unit when people are present.
- Switch off unit when the area is not in use.

www.rittenhouse.ca

Compu-Spray Instructions

Table of Contents -	2
Congratulations -	3
Selection of Insecticide -	4
Things You'll Need -	5
How Compu-Spray Works -	5
Parts of Compu-Spray and How They Function –	6 & 7
Selecting a Site –	8
How to Hang –	8
Installation –	9
How to Use -	10
How to Prevent Spaying in One Direction -	11
Care and Maintenance –	12 & 13
Winter Storage -	14
At Start of New Season -	14
Warranty -	15

CONGRATULATIONS

We are pleased that you have purchased a Compu-Spray to control flying and crawling insects in your yard. The Compu-Spray was developed to give effective control of small insects with the use of a minimum amount of insecticide – less than you or the professional would use by any other spraying method. It kills insects where they live and breed. It does not attract them to you.

When properly located and used, the Compu-Spray will keep your yard almost completely free of mosquitoes, making out-door living more enjoyable and reducing the risk of heartworm in dogs and encephalitis in horses. It will reduce substantially the number of flies.

The Compu-Spray will assist in the control of aphids, red spider mites, mealy bugs and scales. Although you may need to spray intensively by hand to get rid of heavy infestation, the Compu-Spray should keep the bug population down.

Limited Warranty

Your Compu-Spray is guaranteed for one year against defective parts or workmanship.

Your Compu-Spray comes with the following:

- Instruction booklet
- Measuring cup
- Extra nozzle parts
- O-ring for block off posts
- Hanging bracket complete with two pulleys for hanging on a post
- 2 each of 3 inch long bolt head screws to attach the hanging bracket
- Nylon rope
- Cleat
- Wood screws for cleat

www.rittenhouse.ca

Selection of Insecticide

Compu-Spray has been thoroughly tested and is warranted for the application of the insecticide, Malathion 50, which is a 50% Malathion solution sold in most hardware and garden centers. Most hardware store and garden center Malathion 50 solutions are water-soluble and can be used in the Compu-Spray. Solutions of Malathion have been used extensively around the home and in public mosquito control programs since 1956. Compu-Spray has been tested with the insecticide Malathion ONLY; therefore our warranty does not cover the use of ANY OTHER chemical.

Caution: Insecticides, which are wettable powders, are not liquid and cannot be used in the Compu-Spray.

Labels and the Law: It is against the law to use any insecticide in a manner inconsistent with the label instructions. Please read the entire label. Use strictly in accordance with label precautionary instructions and directions.

Compu-Spray As An Applicator:

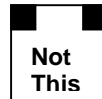
The tank holds slightly more than a gallon; each 30 second spray dispenses approximately 2 fluid ounces of solution; the frequency of spraying depends on the wind; the maximum possible sprays is 6 per 12 hours or 12 per full day; wind activity will cause variations, but application of one gallon in a week has been normal experience. This persistent day in and day out uniform spreading of small amounts of solution is what makes Compu-Spray unique in achieving maximum effectiveness with a minimum use of chemical.

Compu-Spray applies a 2% solution of Malathion, which is effective only against the small "soft shelled" insects like mosquitoes and aphids.

Things You'll Need:

In addition to the Compu-Spray, you will need:

1. A post and post holder. See section on installation.
2. Two 6-volt lantern batteries. 6-volt lantern batteries come in two sizes, a small square style and a larger rectangular style with post terminals on top. It is the larger one that is used in the Compu-Spray. The correct battery measures 5-1/4" long by 2-13/16" wide by 4-3/8" high. It is marked six volts.



A high quality battery will last a full season. We recommend a "super heavy duty" Avoid bargain batteries.

NOTE: The Compu-Spray system is designed to operate on 12 volts using two six-volt lantern batteries. **It cannot be connected to 120-volt house current.**

How The Compu-Spray Works:

The Compu-Spray kills mosquitoes and some other nuisance insects by killing them where they live and breed before they get to you. The Compu-Spray automatically spreads a small amount of a 2% solution of a mild but effective insecticide over your grass, shrubs, and garden. Insects in their normal movements over the filmed leaves and grass will come into contact with the insecticide and be killed.

The Compu-Spray is a patented device that uses gentle winds to carry a fine mist of insecticide, and a computer to control where and when the insecticide is spread. The windsock on the bottom of the Compu-Spray senses any wind as low as 3 mph, and then the computer takes over. When the windsock contactor dwells at one of the six wind switches, a fine spray is pumped from the nozzle to be carried by the wind. The computer times each spray to approximately 30 seconds.

CAUTION: Follow insecticide label instruction carefully. Activate device one to two hours prior to use of yard.

There are six different wind directions to which the Compu-Spray will respond, one for each 60-degree arc. The computer will put up a spray for each of the wind directions when triggered by the windsock, but only once every 12 hours. The computer remembers which wind directions have been triggered and will respond only once in each 12 hours to any one of the 6 wind directions.

Thus, any part of your yard will get at most only one spray each 12 hours, or only twice a day. It is this regular spraying with a small amount of insecticide that is the secret to the success of the Compu-Spray, and why the Compu-Spray uses less insecticide than is used by other methods. Although the wind may blow steadily from one direction during the day, it often shifts at sunset and again at sunrise, enough so all 6 wind switches are normally contacted eventually and all corners of your yard will be sprayed in a few days.

www.rittenhouse.ca

Parts of Compu-Spray and How They Function:

Spray Nozzle (1) The nozzle emits a cone shaped spray which allows the wind to spread the fine mist over your yard.

Nozzle Holder (2) (below spray nozzle) the nozzle is screwed onto the nozzle holder, which can be removed and replaced on the spray pipe by hand using a twisting and pulling motion. The nozzle holder also contains a filter screen (not shown), which protects the very small hole in the nozzle from becoming plugged.

Hook (4) Use of this hook for hanging permits Compu-Spray to be removed while the rope remains in place. The flat spring clip under the hook will prevent bouncing off in high winds.

Tank (5) The tank holds more than a gallon of mixture. We recommend filling it once a week, which should eliminate mosquitoes from the average yard. There is another filter screen (not shown) inside the tank to protect the pump.

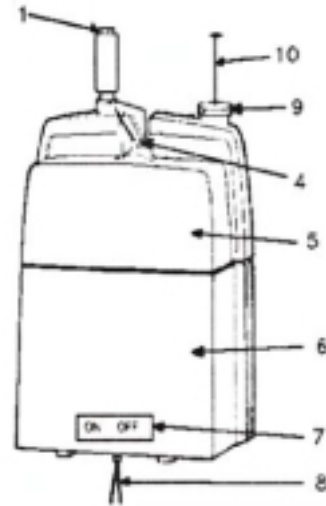
Liquid Level Gauge (10) When the gauge rod is down the Compu-Spray can be refilled with solution.

Fill Cap (9) When removing the fill cap be careful of the gauge rod and float, which are attached to it and must also be removed to fill the tank.

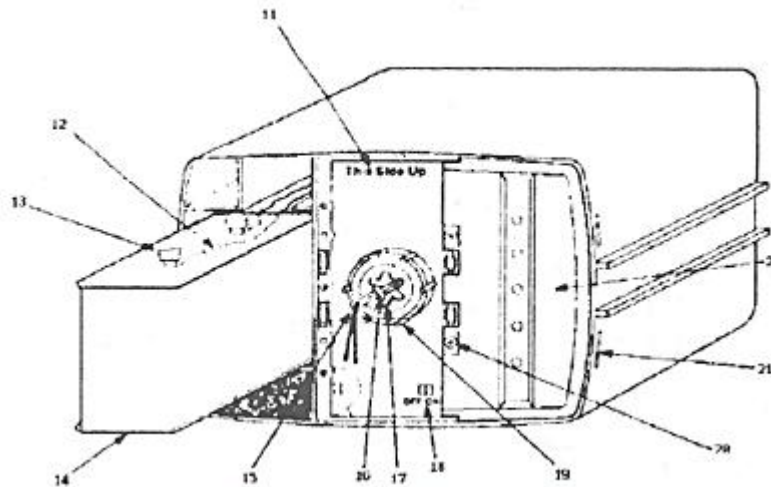
Pump, Motor, Electronics (6) (not shown) these parts are inaccessible in the center section where they are protected from the elements. The pump is a small gear pump, which develops pressure to spray if the batteries are not excessively weak. The only moving parts are the pump gears and motor.

On-Off Label (7) The on-off switch is located on the bottom. This label on the side nearest the switch will help you find it and use it correctly.

Windsock and Wand (8) this simple piece of yarn catches the wind, blowing from any direction, and moves the wand to trip the electronics, which controls the spray. The windsock is just enough to activate the Compu-Spray in a wind of 3 miles per hour.



Bottom View



This Side Up (11) Lay Compu-Spray on its side for access to the battery compartments.

Windswitch Star (17) This patented arrangement senses the movements of the **Windsock and wand** (15) into six distinct sectors, giving the Compu-Spray its unique directional control.

The movement of this wand into a particular sector will cause the **Contactor Disk** (16) to trigger the computer controlling the pump. The pump will spray for about 30 seconds, unless it has already done so within the current 12-hour cycle. Compu-Spray will sometimes spray in response to two or more sectors in quick succession at the start of a new twelve-hour cycle.

Contactor Dwell Time: There must be a contact for almost a second before the computer will respond. This prevents Compu-Spray from reacting to fitful winds, which cause the wand to bounce around.

CAUTION: DO NOT place your fingers or anything else into the contactor area. The electronic circuits are easily damaged by static electricity.

Batteries The Compu-Spray is powered by 2 batteries, one of which (14) is shown being placed into its compartment. Each compartment has a **Door** (22), which is held, in place by two **Screws** (20) and its hooks, which fit into **Slots** (21)

Battery Wires (12) In each compartment two wires will be found which must be attached to the **Terminals** (13) of the battery. It is essential that the RED wire be attached to the Positive (+) terminal and the BLACK wire to the Negative (-) terminal.

Block off Posts (19) Around the Windswitch star there are 6 posts, which can be used with a rubber band to prevent spraying in any one direction.

On-Off Switch (18) When ON the switch allows the windswitch contactor to make the pump spray. **CAUTION:** Keep the switch off except when elevated for use. If the Compu-Spray is handled with the switch on after the initial turn on 45-minute delay, it will probably spray unexpectedly.

Selecting The Site:

The Compu-Spray is activated by the wind and the wind carries the mist of insecticide to areas you want to protect and to areas where mosquitoes live and breed. To do this, it must be hung 10 feet or more above the ground in a location where it will be exposed to all wind directions.

The factors to consider are:

High and Unobstructed. This is the most important. At least 10 feet high and at least 25 feet from any building, and avoid trees.

The normal variations in the unobstructed wind will give all around coverage in a few days.

Prevailing Wind: It is helpful if the prevailing wind can be identified.

Breeding Area: If the mosquitoes breeding area is identifiable the Compu-Spray should be located so prevailing winds carry the mist in that direction.

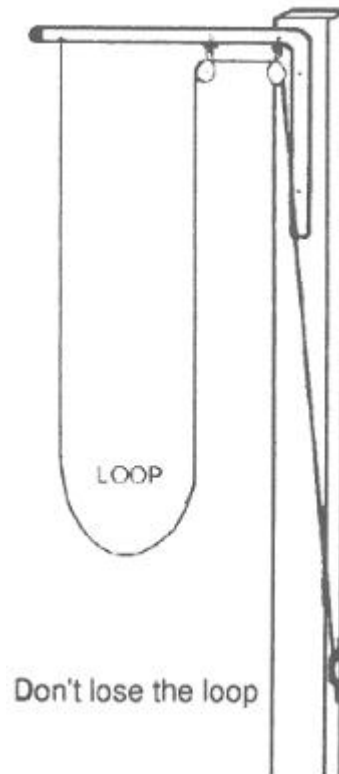
Protected Area: If no breeding area is known, place the Compu-Spray to the side from which the prevailing wind blows toward the area you wish to protect from the mosquitoes.

How to Hang:

Compu-Spray must be suspended at least 10 feet in a way, which prevents it from rotating in the wind. This is necessary to preserve its consistent response to the direction of the wind. The hanging bracket with 2 pulleys attached, is provided as a convenience to hang the Compu-Spray to a post. When the bracket is mounted and the rope threaded through the pulleys, and tied through the hole at the end of the bracket, a loop is formed. It is from this loop that your Compu-Spray will hang by its hook. The free end of the rope, which extends down from the second pulley, will be tied to the cleat to hang the Compu-Spray.

In all cases, there should be nothing, which interferes with the free motion of air currents. They start the pump and most important they carry the spray and spread the solution. The nozzle should always be above the bracket.

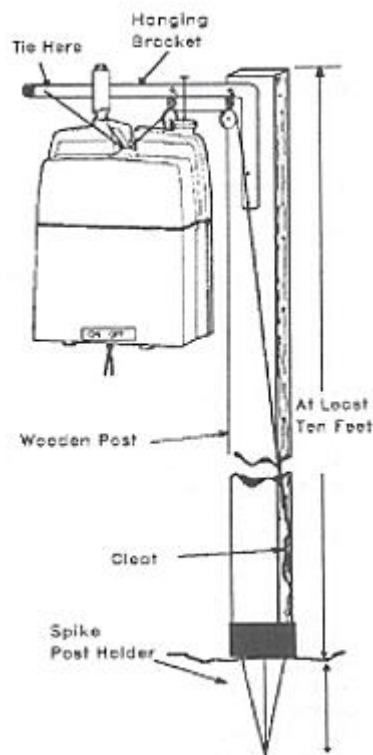
Whenever the Compu-Spray is removed from the loop of the rope, the loop should be secured to the cleat.



Installation:

Attach the hanging bracket to a wooden post using the enclosed 3" long screws. The Compu-Spray nozzle should be at least 10 feet above the ground. The post should be secured at the base by either sinking into the ground or using a 30-inch long post holder spike.

Attach the cleat to the post on the side of the post, not directly under the Compu-Spray. When hoisting Compu-Spray up or down, do not stand directly underneath it. Keep the cleat high to discourage use by children.



How To Use:

Batteries: Compu-Spray requires two six-volt lantern batteries. To put the batteries in place, read the section on “Batteries” Note that it is essential that the Red Wires go to the (+), or positive terminals and the Black wires go to the (-), or negative terminals. Slide the batteries into their compartments and replace the doors. Put the hooks through the slot and secure each with two screws. Make sure the switch is OFF.

Malathion Solution: We recommend the purchase of water-soluble Malathion, which is normally available in your local hardware or garden center as Malathion 50. The local hardware and garden center brand is effective for use in Compu-Spray. Compu-Spray uses a 2% solution, which is made by mixing 5 ounces of Malathion 50 with one gallon of water. The tank holds slightly more than one gallon. To fill your Compu-Spray for use: Use the supplied measuring cup to put 5 ounces of Malathion into the tank. Pour one gallon of water into the tank. Be careful to use clean water and prevent dirt or debris from getting into the tank.

Placing in Service: When the batteries are in place and the tank is filled, the Compu-Spray can be hung by its hook to the loop of rope. Hoist the Compu-Spray up part way and turn the switch ON. Inspect the Windssock, straighten the yarn so it points straight down and swings freely, and slowly hoist the Compu-Spray up the rest of the way. When the Compu-Spray is all the way up, be sure that the nozzle is above the hanging bracket. Keep the rope tight as you secure it to the cleat and leave the Compu-Spray to do its work.

Spray Delay – Avoiding Accidental Spraying: When the switch is turned on there is a delay of 45 minutes before any spraying can occur. IF the Compu-Spray is moved or handled with the switch on after this time has elapsed it will probably spray unexpectedly. Therefore the switch should be OFF at all times that it is not hung high in its position for intended use.

To guarantee protection during the time that it is being hoisted into position, the Compu-Spray has a built in time delay. It cannot spray, even if contact is made for a period of approximately 45 minutes after the switch has been turned on. For normal use, turn the Switch on, hoist into position, and wait 45 minutes to watch it work. During that time, motion of the wind will not trigger the Compu-Spray. If the switch is turned OFF, even for a very short time and turned back on it will start the time delay.

It is necessary to exercise care when lowering the Compu-Spray. When it is low enough to reach, turn OFF before bringing it all the way down.

The time delay will prevent spraying when the Compu-Spray is being put into normal service. However, the only guarantee against accidental spraying is to keep the switch OFF.

Refill: A full tank will normally last about a week. Except for unusually severe situations, the mosquitoes will have been eliminated by that time. The gauge rod in the fill cap shows how much solution is in the tank. When the rod does not extend above the cap the tank is empty. This should occur after 5 to 7 days.

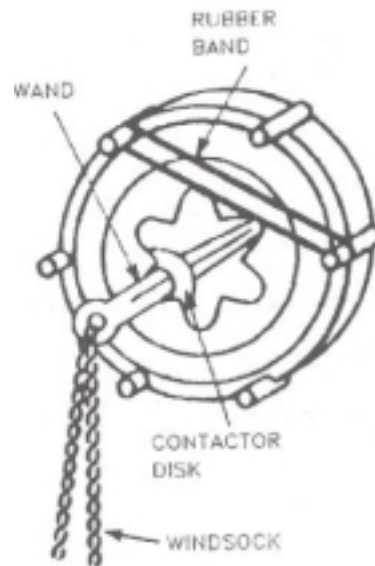
Refill Procedure: We suggest that in addition to the water, Malathion, measuring cup and funnel, you bring a bench or a box to stand the Compu-Spray on while refilling it. If a small amount of solution remains in the tank, discard before filling per instruction under Malathion Solution.

Shutting Off For More Than A Few Days: If the Compu-Spray is to be turned off for more than a week, it should be taken down, emptied and rinsed out.

www.rittenhouse.ca

How To Prevent Spreading Insecticide in Any One Direction:

Block Off Posts: Around the Windswitch star are 6 block off posts. These posts can be used to block off a section so that the wand cannot touch it. Use a $\frac{3}{4}$ " oring or a rubber band over two posts, not adjacent but separated by one post. Place over the posts nearest the side you want to protect from spray. In this way, you can effectively prevent the Compu-Spray from spraying when the wind blows towards that direction.



Care and Maintenance:

Analyzing problems

Your Compu-Spray was thoroughly tested at the factory.

Please read all these instructions

There could be a problem if the Compu-Spray does not use its tank of solution in its usual week or so. It is necessary to be aware, however, that while it is unusual for the wind to be still for almost a week, it is not impossible, especially during a very hot, dry spell. Mosquitoes will not be active and the Compu-Spray may spray very little, if at all, at such a time. This is extremely rare, so if your Compu-Spray does not seem to be pumping or you hear the pump running with no spray or see a poorly shaped spray, (it should be a hollow cone of fine mist); you may want to test its operation. Proceed as follows.

To Test: Lower the Compu-Spray to where you can reach it and leave it there. Turn the switch off for about five seconds then turn it on again. This will start a new 12-hour cycle, but because of the "Spray Delay" there must be a 45-minute wait before the test can proceed. Move the Wand into one of the Windswitch sectors. When making contact by moving the Wand manually, you must be aware of the Contactor Dwell Time, which is almost a full second. This should cause a spray of about 30 seconds. Observe the spray.

Nothing happens, pump does not run. Cause – the wires to the batteries may be connected incorrectly.

Pumping is too weak: Nozzle dribbles, Cause – if the batteries are a couple of months old, they may be too weak or defective to make a good spray. Battery voltage does decline with use but high quality batteries should last three months. Before giving up, be sure to try with a new set of batteries. One of the two, although new may be a dud.

No spray but motor runs or spray is solid jet, not a mist. Cause – Nozzles and filters require attention.

Care of Nozzle and Filters: The nozzle can plug with dirt or dried insecticide. Always use clean water and rinse out the tank occasionally.

The hole in the nozzle is very small. For this reason, it is protected by the filter screens and each Compu-Spray is supplied with a set of spare nozzle parts.

If your Compu-Spray is spraying poorly or not at all when the motor runs, use the following procedure.

Remove the Nozzle Holder with the Nozzle from the Spray Pipe, using a twisting motion. Unscrew the cap from the nozzle holder and remove the yellow core, which is loosely held inside. Don't drop it! The small hole in the nozzle can be seen easily, and also the fine screen in the nozzle holder, both of which may need cleaning occasionally. Soak all the parts in hot, soapy water and rinse until they are clean.

Exercise care when reassembling the nozzle parts. The yellow core can be damaged if it is not properly seated in the nozzle and the support wire of the nozzle holder placed inside it. Reassemble in the sequence as shown on the following page.

www.rittenhouse.ca

Care of filter in tank. At the bottom of the tank there is a filter, which should be cleaned whenever the nozzle is cleaned. Fill the tank with hot soapy water; let soak, sloshing it around occasionally; drain and rinse well.

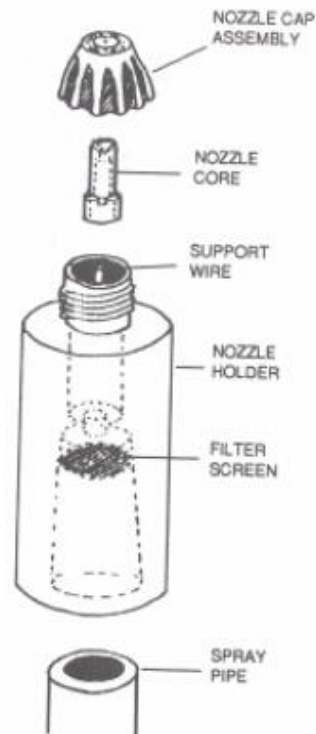
Care of contactors: Since the contactors are made of solid coin silver, cleaning is probably unnecessary.

Malfunction: If you cannot solve the problem or if the Compu-Spray will not operate, or runs continuously, or empties a tank in one or two days, repairs must be made at the factory. Ship prepaid to Rittenhouse, 1402 Fourth Avenue, St. Catharines, Ontario Canada L2R 6P9
Please Note: You must obtain an RGA Number (Return Goods Authorization Number) prior to shipping.

For units under warranty, Rittenhouse will repair and ship back to you at not charge. For units not under warranty, repairs are charged at \$58.00 per hour plus parts and shipping

Before returning your Compu-Spray, be sure to remove the batteries, empty the tank, rinse it out and pack carefully in a strong container.

Hold the nozzle upside down and insert the small end of the yellow core into the white liner. Make sure that the wire support of the nozzle holder is inside the hollow end of the core before screwing the nozzle and the holder together. Tighten them firmly but only hand tight.



Instructions For Winter Storage:

The Compu-Spray must be emptied and well rinsed, including the pump. Proceed as follows:

Turn the switch off.

Remove the Nozzle Holder from the spray pipe and put into hot soapy water to soak. Dump remaining solution out of the tank being sure to empty the spray pipe as well. Half fill the tank with hot soapy water, soak, shake well, empty and rinse well.

Wash and rinse the nozzle holder be sure to the filter screen inside is clean and replace it firmly on the spray pipe. Fill the Compu-Spray half full of water.

Hang the Compu-Spray up, turn switch on; wait 45 minutes then start the pump at least three times by moving the wand into different Windswitch contactors. If indoors, cover the nozzle with a rag. Be sure there is a good spray. Turn the switch off. Keeping the tank partially full of water, lay the Compu-Spray on its side and remove the batteries. Replace the doors and empty completely.

Store in a warm and upright position. **Do Not Allow To Freeze**

At Start Of the New Season:

If the instructions for winter storage have been followed, the Compu-Spray can be returned to service as it was under "How to Use". Use fresh batteries. Batteries do have a shelf life and batteries from last season may not give satisfactory service this season. We recommend a Super Heavy Duty battery.

If winter storage instructions were not followed, they **MUST** be completed with special attention to very thorough washing and rinsing before reuse. Under these circumstances it is possible that the insecticide may affect the nozzle or the pump, so it would be wise to test it before leaving it up for regular service. See "TO TEST" page.

Limited Warranty:

This Compu-Spray is guaranteed against defective parts or workmanship for one year from date of purchase.

Warranty is invalid if:

Compu-Spray is used with any mix stronger than 2% Malathion.

Compu-Spray is not properly washed out before storing.

Compu-Spray is used with incorrect batteries.

Compu-Spray is damaged by dropping.

Compu-Spray's electronics have been damaged by static electricity applied to the wind switch contacts.

Compu-Spray is shipped with Malathion in the tank.

Compu-Spray has been disassembled beyond removal of battery doors and nozzle holder.