



# ENGINE DRIVEN SPRAYER

# SET-UP & OPERATION

For Warranty, Safety, Maintenance, Part Breakdowns, and Recipes plug in the USB Flash Drive that was included with your A1 Mist Sprayer

Fax 402-755-4143  
Toll Free 877-924-2474  
Email [info@mistsprayers.com](mailto:info@mistsprayers.com)  
Website [www.mistsprayers.com](http://www.mistsprayers.com)

A1 Mist Sprayers  
PO Box 517  
110 W. 3rd Street  
Ponca, NE 68770

# **INSPECTION CHECK LIST FOR DISTRIBUTOR, DEALER, and/or OPERATOR**

This inspection checklist must be made on all new A1 mist sprayers prior to any operation. Please check each item listed. Some adjustment may be necessary before application.

- Check and make sure all guards and shields are in their proper place and secure.
- Check all mist sprayer belts for cracks and alignments.
- Check all hydraulic connections for any loose connections or missing parts.
- Check all nuts and bolts and tighten if necessary.
- Check volute and blower wheel for any loose connections or foreign material.
- Check all sheaves, sprockets, and setscrews for proper tightness and for loose or missing parts.
- Check hydraulic cylinder, hydraulic cylinder hoses, and electric actuator (if applicable) for proper alignment or loose connections.
- Check your poly tank for foreign material.
- Check your gasoline engine to make sure it is bolted down and secured in proper working order.  
(See gasoline operator's manual)
- Check blower fan for proper timing.

**A1 MIST SPRAYERS** are engineered and designed for easy serviceability and maintenance. During the break-in period, always check the PTO, nuts, bolts, belts, and all shields for looseness and proper alignment. Some additional adjustments could be necessary during the break-in period. All nozzles, belts and strainer screens should be checked and cleaned daily.

# WHAT YOU GET WITH YOUR ENGINE DRIVEN SPRAYER



**A.PRESSURE GAUGE**

**B.WIRELESS REMOTE**

**C.FUEL TANK GUIDELINES**

**D.EMISSIONS INFORMATION**

**E.REMOTE TRANSMITTER INFORMATION**

**F.HYPRO PUMP INSTRUCTION MANUAL**

**G.HONDA ENGINE INSTRUCTION MANUAL**

**H.4-RED 8004 TIPS (ALREADY INSTALLED)**

**I. 4-RED NOZZLE FILTERS (ALREADY INSTALLED)**

**J.4-NOZZLE RETAINERS (ALREADY INSTALLED)**

**K.4-NOZZLE BODY RETAINERS (ALREADY INSTALLED)**

**L.ELBOW NOZZLE BODY**

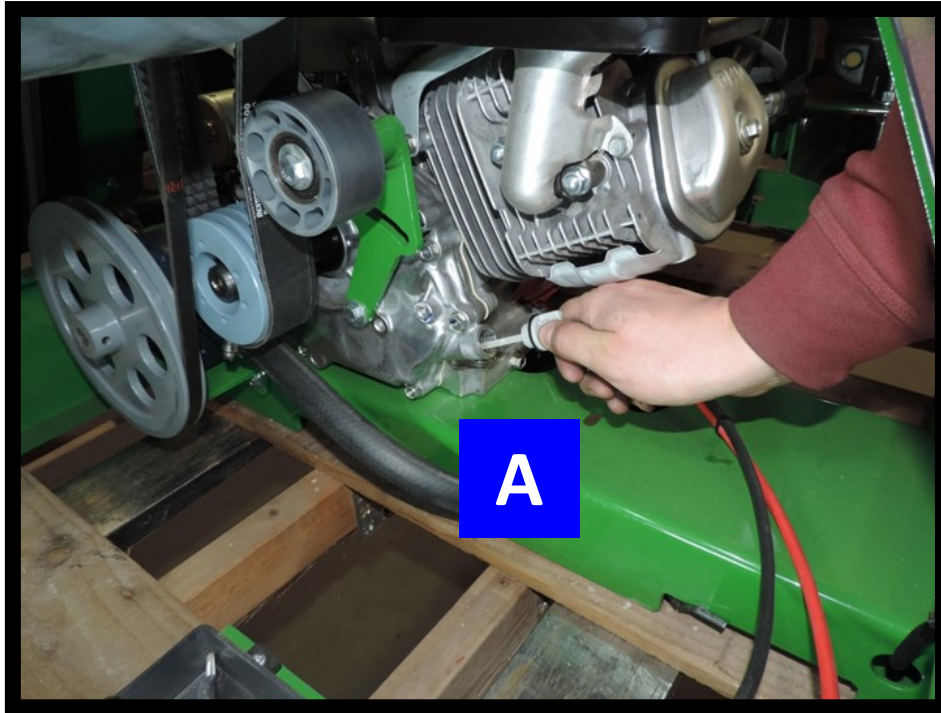
**M.2-T NOZZLE BODY RETAINERS**

**N.3-WHITE 8008 TIPS**

**O.3-GREY 8006 TIPS**

**P.3-PLUG CAPS**

# SET-UP INSTRUCTIONS

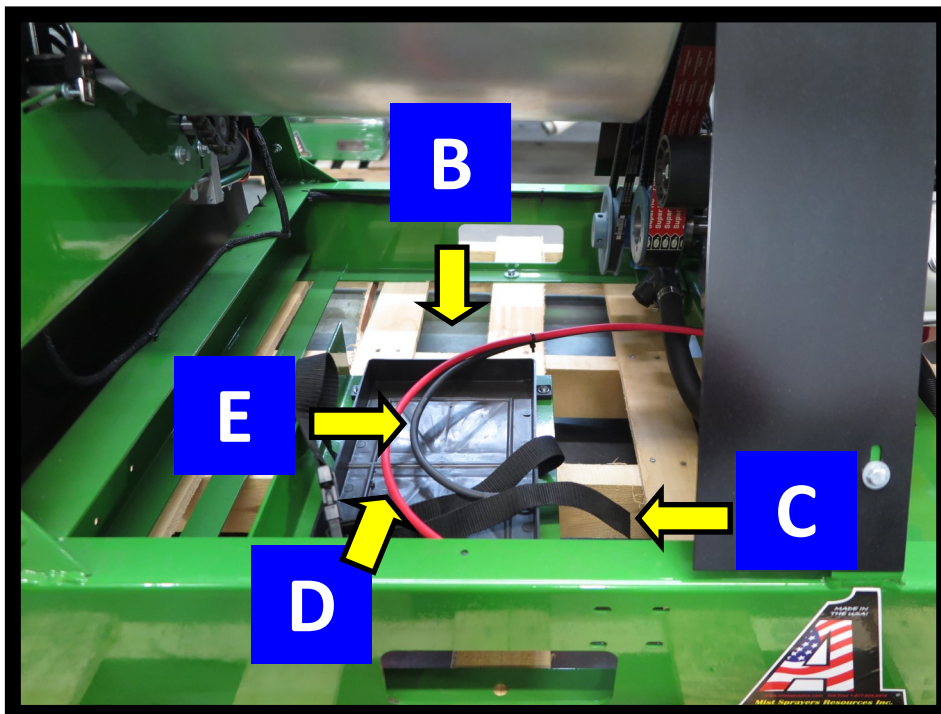


**1. Check Honda Engine for Oil and Fuel—A (Above)**

Low levels of oil or fuel may cause engine to not start or run properly

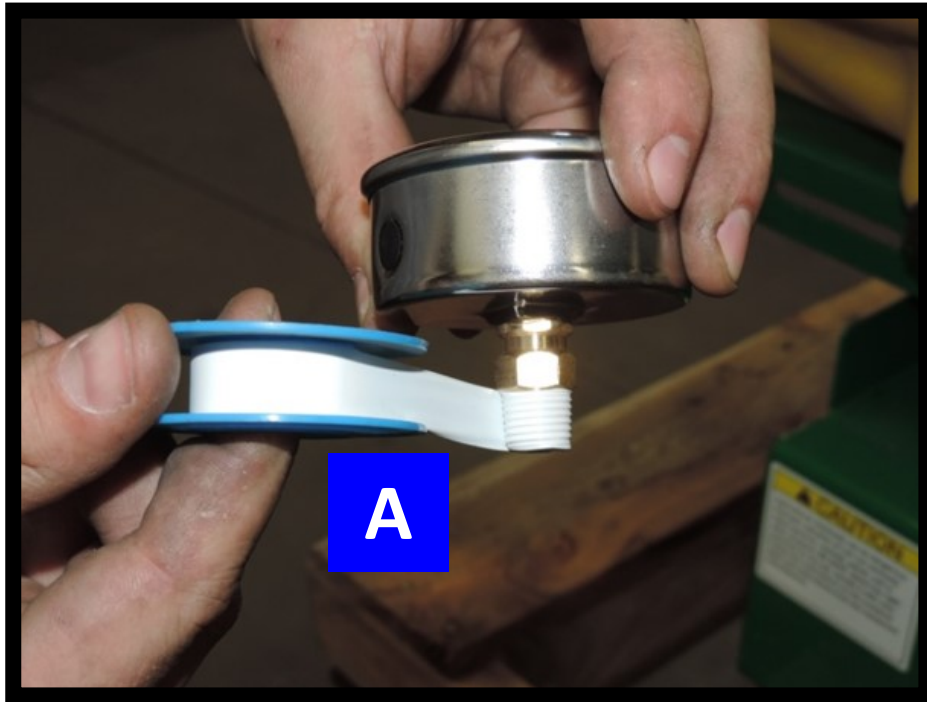
**2. Obtain a 12 Volt Marine or Automotive Battery (Below) - NOT INCLUDED**

- a. Install the battery in the Battery Box provided—B
- b. Strap the battery into place using provided straps—C
- c. Attach the battery cables (Red=Positive—D / Black=Negative—E)



# SET-UP INSTRUCTIONS

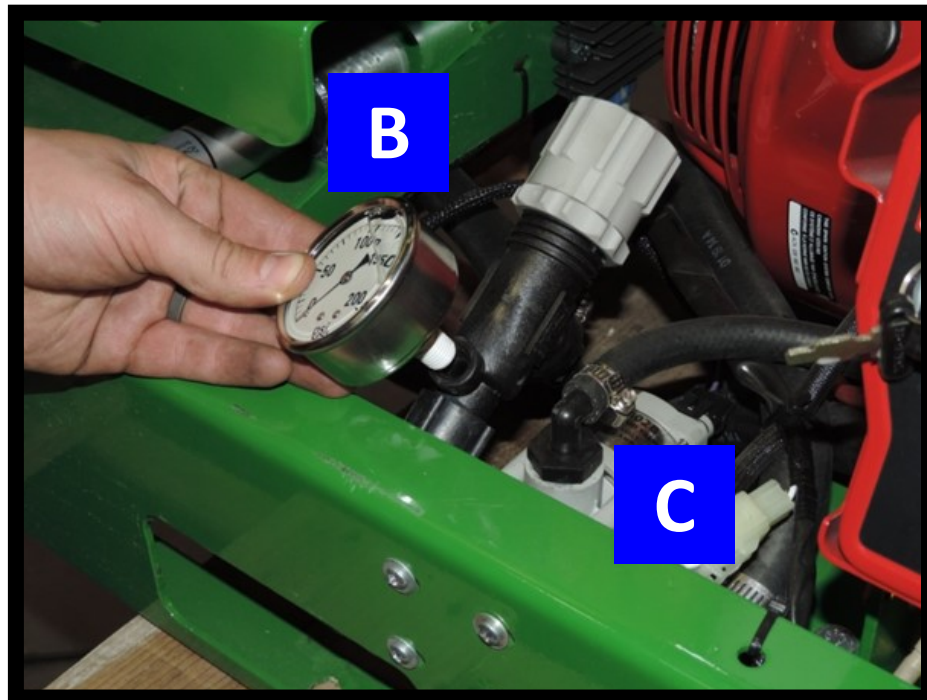
(CONTINUED)



**3. Wrap Teflon Tape—A around Threads of Pressure Gauge (Above)**

This will ensure a proper read from your pressure gauge.

**4. Install Pressure Gauge—B to the fitting on side of sprayer—C (Bottom)**



# SET-UP INSTRUCTIONS

(CONTINUED)

4. Add Gas to the Engine

5. Check Inside of the Tank for ANY Loose Material

6. Remove Red 8004 Tips, Red Nozzle Filters, and Nozzle Retainers (Below)



8004 Tip



Nozzle Filter



Nozzle Retainer

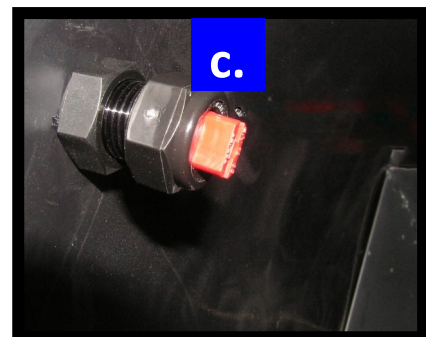
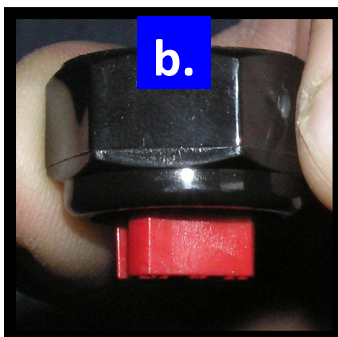
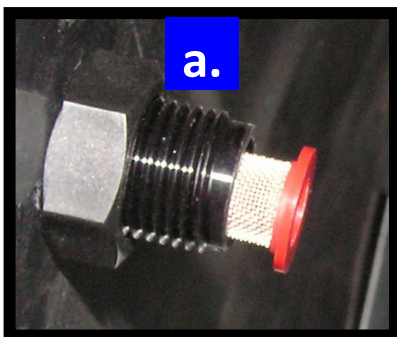
7. Flush Water Through the Lines

**This ensures that there is no debris within the system.**

- Fill tank approximately 1/2 full of water
- Turn ball valve to ON position
- Start Engine
- Allow water to flush through the system for at least 5 minutes
- Shut down the entire system in reverse order

8. Reinstall the Spraying Tips. (Below)

- Insert nozzle screen.
- Insert tip into nozzle retainer.
- Place nozzle retainer with tip over the nozzle filter and screw on moderately tight.
- Repeat steps a-c for remaining tips.

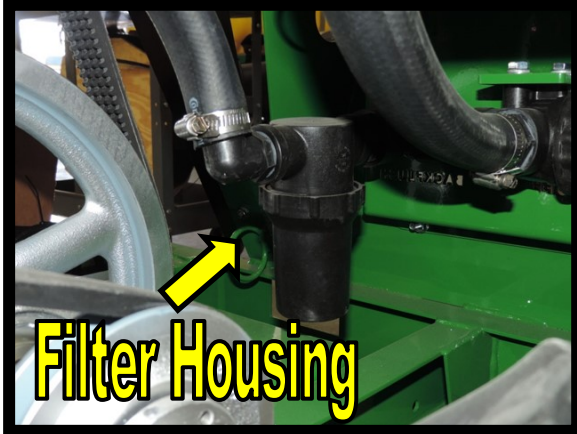


# SET-UP INSTRUCTIONS

## (CONTINUED)

### 9. Check and Clean the Filter (Below)

- a. Unscrew housing.
- b. Remove filter screen.
- c. Thoroughly clean the filter.
- d. Place filter back into the housing unit.
- e. Fasten housing back onto sprayer.
- f.



### 10. Test Your Sprayer

After checking that everything is operational (Steps 1-9) we recommend testing your sprayer (with water only) to fully understand the spray patterns and distance of spray in different wind conditions. Try to pick a good sunny day so that you can adequately see the mist.

#### **Spraying with a Mist Sprayer is an art, not a science!**

- a. Fill tank with water
- b. Check Gas and Oil levels
- c. Start Engine
- d. Increase Engine Throttle to Full Throttle
- e. Set pressure to desired PSI using Pressure Gauge (Between 40-50 Psi is desired)
- f. Turn Solenoid ON and start spraying water (DO NOT LET PUMP RUN DRY)
- g. Start spraying the water to get a feel for the unit and how it operates.
- h. While the Sprayer is running check all belts and pulleys to ensure that everything is operating properly
- i. Decrease Engine Throttle to Idle and Shut off Engine and Pump

### 11. You Are Now Ready to Test your Sprayer!!! (SEE OPERATION SECTION)

### 12. Drain the Tank After Test Spray

**NOTE: After 5 hours of use, check all bolts, nuts, plumbing, and pulleys. This is your Break-In period. Belts will break in and seat into pulleys and may need to be retightened.**

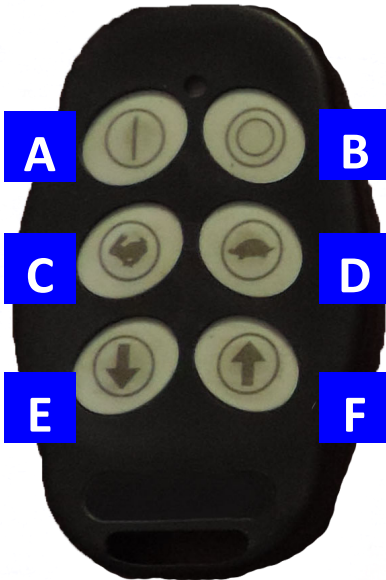
**\*\*Closing the Ball Valve on the return line will increase or decrease pressure**

# SET-UP INSTRUCTIONS

(CONTINUED)

## This is Your Remote

Familiarize yourself with the 6-Buttons and their functions to make spraying easier and more comfortable for you, the operator



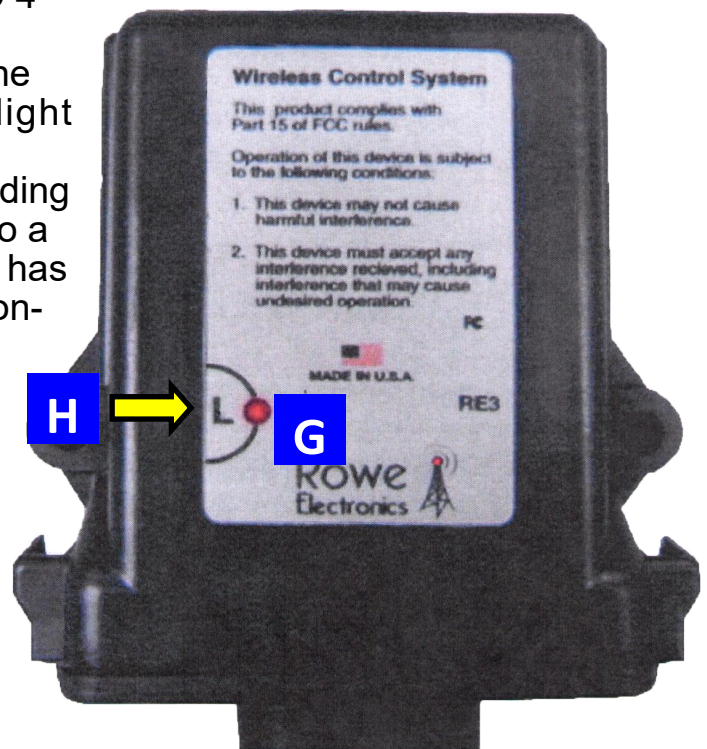
- A. Solenoid ON/OFF Control
- B. Emergency Engine OFF Kill Switch
- C. Increases Throttle
- D. Decreases Throttle
- E. Rotates Fan & Volute Left
- F. Rotates Fan & Volute Right

Occasionally the Remote and Receiver become disconnected and it is necessary to reprogram the Remote and Receiver so they are linked.

### SEE DIRECTIONS BELOW FOR PROGRAMMING THE REMOTE AND RECEIVER

1. Power up the Unit (LED light—G will flash RED 4 times)
2. Lightly rub a fairly powerful magnet on/around the receiver Learn Area—H and remove (the LED light will be a constant RED)
3. Immediately press any button on the remote holding in within 2 feet of the receiver. (the LED will go to a GREEN/YELLOW color, confirming the receiver has picked up a signal from the remote and has reconnected.)
4. The remote is now ready to function, again, as intended.

Should the above procedure not work for reprogramming, wait until the LED light goes out and repeat. If a second failure occurs place your magnet on/around the Learn Area until the LED light goes a constant RED and leave it until the LED goes out (approximately 12 seconds). This clears the receiver's memory and you can then proceed with the above steps (1-4)



If you are still having issues visit [www.rowe-electronics.com](http://www.rowe-electronics.com) for additional troubleshooting information, or give them a call at (515)-981-5504.

**\*\*\*Before doing any of the above reprogramming please verify a 11V+ power supply to the Receiver and verify a 2.7V Remote batter voltage. Over 90% of system performance issues lead to power supply.**





# OPERATION

For Warranty, Safety, Maintenance, Part Breakdowns, and Recipes plug in the USB Flash Drive that was included with your A1 Mist Sprayer

# OPERATION INSTRUCTIONS

## 1. You Are Now Ready to Start the Application Process

- a. a. Add your active product to the tank
- b. b. Add additional water to fill the tank
- c. c. START SPRAYING!!

## 2. Give the Sprayer a Check-UP

After a few hours of spraying, we recommend checking all nuts, bolts, and set screws. This ensures that everything is working properly and that no future issues will arise. We also recommend a check-up after each application. It is also important to make sure everything is properly greased. The bearings and PTO could also use a check-up/extra shot of grease after each use.

## 3. Drain the Tank

If you are having any difficulties refer back to the Set-Up Section

OR

For any questions on spraying techniques, advice, or additional information or questions please do not hesitate to call A1 Mist Sprayers at our Main Office. We have people on hand specializing in every aspect of the spraying business that would love you help you with your new sprayer.

# PROPER HOOK-UP & INSTALLATION

## Skid units

Make sure your skid unit is centered on your pick-up or truck and properly bolted down before operations.

## Trailer units

ALL **A1 Mist Sprayer** trailer units are engineered to connect to all SAE-ASAE standard tractor drawbars. Always adjust the drawbar so that the horizontal distance for the end of the tractor PTO shaft to the center of the hitch pinhole is approximately 14" for 540RPM PTO. All drawbars in the crossbar need to be parallel with tractor centerline. Place either the proper bolts or locking pins on both sides of drawbar for proper trailing and stabilization.

# NOTICE!!

An incorrectly located trailer hitch (drawbar) point may cause damage to the trailer tongue and/or power take-off shaft which may lead to personal injury.

When attaching an 8" stroke cylinder to a 3 point unit, make sure the air is out of the hoses.

# OPERATION

## FILLING THE SPRAYER

Determine the chemical concentration required according to chemical label directions. Generally these directions give a range of low to high concentrations for a specific use. **A1 Mist Sprayers** perform well using the light to medium concentrations.

Wettable powders should be strained with water to eliminate lumps. This premixed solution should be strained through no larger than a 40 mesh screen when adding to the tank.

When filling the spray tank, be sure to have the tank half full of water then add the required chemical and finish filling the tank to the desired capacity. Use only clean water and fresh chemicals for best results.

Most chemicals deteriorate rapidly after mixing; therefore mix only the amount you intend to use immediately. Never leave unused chemicals in the tank or lines of the sprayer. Drain and flush after each use.

## FLY WHEELS AND BELT PULLEYS

Check and tighten all bolts on Fly Wheel and Belt Pulleys 2-4 times a year. They can work loose during regular use.

## OPERATING HINTS:

- Engage 540 RPM PTO shaft only at a SLOWER RPM. Then increase the RPM to an operating speed of 540 RPM
- Keep the **A1 Mist Sprayer** as level as possible.
- Make sure PTO drive shaft is connected and that shields are in place.
- Make sure fan rotation is correct. Be sure volute does not hit frame.
- Keep nozzles, strainers, filters and hoses CLEAN!
- Always flush sprayer after each use. This will add to the life of the pump and is in accordance with Local, State and Federal regulations.
- Never let concentrate and water freeze in the **A1 Mist Sprayer** during cold weather.
- Never let any pump run dry.
- Keep children and all personnel away from fan discharge area!
- Not recommended for use with STRONG WINDS.

## FLAT NOZZLES

**A1 Mist Sprayers** with nozzles have 4 nozzle orifices with 8004 tips and nozzle strainers installed at the factory. Additional orifices, cores, nozzles and strainers can be provided to obtain various calibration rates.

Orifices, cores, nozzles and strainers should be removed and thoroughly cleaned at regular intervals to insure accuracy and prevent blockages. Once daily is recommended.

## Other Available Tips

Tip Color	Tip No.	Microns
Orange	8001E	100+
Green	80015E	150+
Yellow	8002E	200+
Blue	8003E	300+
Red	8004E	400+
Brown	8005E	500+
Gray	8006E	600+
White	8008E	800+



We Are Here For You!

Please feel free to contact us Monday thru Friday 8am-5pm.

For Warranty, Safety, Maintenance, Parts Breakdowns, and Recipes plug in the USB Flash Drive that was included with your A1 Mist Sprayer.

# Thank You & Congratulations

on your purchase of an America's #1 low volume mist sprayer from A1 Mist Sprayers.

A Valley Industries Brand



Fax 402-755-4143  
Toll Free 877-924-2474  
Email [info@mistsprayers.com](mailto:info@mistsprayers.com)  
Website [www.mistsprayers.com](http://www.mistsprayers.com)



A1 Mist Sprayers  
PO Box 517  
110 W. 3rd Street  
Ponca, NE 68770