

25ml POWERED BANANA TREE INJECTOR

PLEASE READ THESE WARNING STATEMENTS BEFORE USING THIS NJ PHILLIPS APPLICATOR

The applicator, associated equipment, and horticultural chemicals each pose inherent risks to human health and safety if used incorrectly and without appropriate safety precautions. All owners of the applicator, including employers and self-employed persons, are reminded of their strict obligations to ensure the health and safety of employees and all other persons in the place (ie workplace) in which the applicator, associated equipment, and chemicals are used and stored. In particular, employers and self-employed

persons MUST make appropriate arrangements to ensure safety and the absence of risks to health in connection with the use, handling, storage, maintenance and transport of the applicator, associated equipment, and all chemicals. Such arrangements include but are not limited to the provision of appropriate protective gloves, clothing, eye wear and respirators, ensuring the applicator, associated equipment and all chemicals are stored at all times safely out of the reach of unauthorised persons, and

ensuring that the applicator and associated equipment is assembled, used, cleaned and maintained strictly in accordance with the directions in this Handbook. In addition, employers and self-employed persons MUST provide such information, instruction, training and supervision in connection with the use, handling, storage and transport of the applicator, associated equipment and chemicals as is necessary to ensure the health and safety in the workplace of employees and all other persons.

Employers and self-employed persons MUST take particular care to ensure the appropriate instruction, training and supervision of employees and others who are under-age, inexperienced, unskilled and/or have difficulties reading or speaking the English language. Employers and self-employed persons MUST ensure that this Handbook is kept with the applicator at all times, and that its warnings and instructions are referred to each time the applicator is used.

- 1 As this applicator may be dangerous in the hands of children, it MUST be kept in a safe place, out of the reach of children and to stop use by unauthorised persons.
- 2 Do not place the applicator near any heat source.
- 3 Oil lubricants other than those indicated may damage rubber components in this applicator.
- 4 To avoid damage to any plant material, careful inspection of the applicator before use is important.
- 5 Setting of the applicator dose levels, and use of the products should be carried out in strict accordance with the manufacturer's administration instructions,

- 6 Components in this applicator may be affected by some commonly used farm chemicals. No responsibility or liability will be accepted by the manufacturer, should the applicator be used with any product other than the chemicals recommended by your stockist/local distributor or NJ Phillips.
- 7 When the applicator is used for the treatment of plant material:
 - a Gloves must be worn at all times by the applicator operator.

- b The operator MUST avoid body contact or inhalation of product or chemicals otherwise injury to the health of the applicator operator may occur.
- c Care must be taken to ensure the draw off cap, feed tube and spring are firmly secured to the backpack to prevent leakage of its contents, otherwise injury to the health of the operator may occur.
- 8 When the applicator is operated by compressed air:
 - a Care must be taken to ensure the air pressure supplied from the compressor does not exceed 690 Kpa (100psi) otherwise damage to the applicator may occur.

- b Unless an approved in line compressed air filter/ lubricator is installed, moisture and/or foreign matter will enter the trigger valve system of the applicator, which will cease to operate in a satisfactory manner.
- 9 Care must be taken to ensure the chemical manufacturer's instructions and material safety data sheets (MSDS) or any other product or health or safety information are followed in regard to safe use and storage of chemicals, otherwise injury to the health of personnel and/or plant material may occur.

INTRODUCTION

The applicator is designed for the administration of certain chemicals within the applicator's dose range, specifically for the use in Banana Trees.

As some components are not compatible with solvents present in certain other chemicals, the manufacturer will accept no responsibility for the consequences

should the instruments be used for any purpose other than that intended.

To ensure continued high performance from the applicator, attention to cleanliness is essential. Cleaning and care instructions must be adhered to.

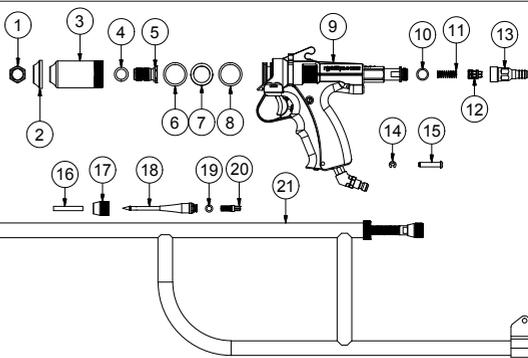
The **WARNING STATEMENTS** covering use of this applicator, **MUST** be read and applied prior to use of the applicator by the operator.

All products produced by NJ Phillips Pty Limited, are identified by a unique batch number. This identification number is affixed to the product to allow traceability by the manufacturer and must not be removed or claims may not be able to be processed.

As our policy is one of continuous improvement the manufacturer reserves the right to alter these specifications at any time.

LEGEND

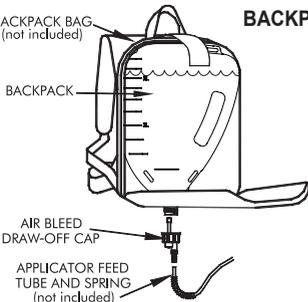
- | | |
|------------------------|--------------------------|
| 1. Lock Nut | 12. Valve |
| 2. Cylinder Shield Cap | 13. Inlet Adaptor |
| 3. Cylinder | 14. Circlip |
| 4. 'O' Ring | 15. Handle Pin |
| 5. Delivery Cage | 16. Needle Protector |
| 6. 'O' Ring | 17. Nozzle Nut |
| 7. Felt Washer | 18. Spear Nozzle |
| 8. 'O' Ring | 19. 'O' Ring |
| 9. Handpiece | 20. Valve and Spring |
| 10. Seal Ring | 21. Spear Brace Assembly |
| 11. Valve Spring | |



SPARE PARTS KITS

Kit No.	Part Name	Illustration No.
WX1548	Service Kit	7, 20, 24, 25, 26.
WX1568	Cylinder Kit	1, 2, 3, 4, 5, 19.
WX1567	Spear Replacement Kit	16, 17, 18, 19, 20.

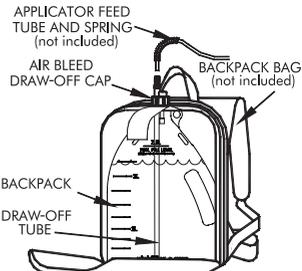
BACKPACK BAG (not included)



BACKPACK & BAG This diagram only covers NJ Phillips back-pack and air bleed draw off system.

Backpack used in the **UPRIGHT** position, with draw off tube pushed into air bleed draw off cap.

Backpack used in the **INVERTED** position, with draw off tube removed from air bleed draw off cap.



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PRIMING THE APPLICATOR

- 1 Set the dose of the applicator to maximum.
- 2 Place end of feed tube into container of product.
- 3 Carefully pull the spear into the grommet of the priming bottle. (Figure 1 and 2).
- 4 Whilst holding the priming bottle vertical operate the applicator to expel all air from the cylinder. Ensure firm pressure is maintained in the grommet so no leaking occurs. (Figure 3).
- 6 Excess product will flow back to the container.
- 7 Remove the spear from the priming bottle and set the applicator to the required dose.
- 8 Rinse the priming bottle and feed tube with water when finished.

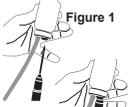


Figure 1



Figure 3

Figure 2
Priming Bottle —
order code: WX1566

attention to cleanliness is essential, both for the protection of the user and plant material. On completion of each use of the applicator the applicator and feed tube MUST be thoroughly cleaned in accordance with the following procedure.



For the protection of the operator, gloves must be worn at all times whilst carrying out this procedure. Also avoid skin, body contact or inhalation of chemicals, which may cause injury to the health of the operator.

1. Applicator used with NJ Phillips backpack:

- a. Place backpack onto work bench with backpack placed upright or vertical, and disconnect both feed tube springs from feed tube by turning in a clockwise direction and the feed tube from the draw off cap and place aside.
- b. Seal backpack to prevent spillage of remaining contents.
- c. Remove air bleed draw off system from backpack and thoroughly clean both parts by washing in a mixture of warm water and detergent. Rinse both parts with clean water, wipe dry, replace air bleed draw off cap onto backpack, and place backpack into storage.



Storage of any remaining contents MUST be carried out as stated in the chemical manufacturer's instructions or material safety data sheets or any other product or health or safety information.



Particular care MUST be taken to ensure all residue of the product has been removed, otherwise injury to the health of the applicator operator may occur from residue contacting the body of the operator or being incorrectly administered to plant material.

2. Place applicator feed tube into clean container with approximately 1 litre of warm water and 0.5ml of noncorrosive detergent.
3. Set dose of applicator to maximum and draw solution through applicator and feed tube by operating applicator a number of times until applicator cylinder and feed tube are clean.
4. Hand wash exterior of applicator, feed tube and springs with a soft brush.
5. Flush applicator and feed tube with clean water and pump dry by operating applicator a number of times.
6. Wipe applicator, feed tube and springs dry, disconnect feed tube from applicator.
7. Immerse applicator inlet fitting into small clean container of NJ Phillips Lubricant and draw a small quantity into the cylinder by operating applicator several times.
8. Applicators operated by compressed air: switch off air compressor and release air pressure in air hose. Disconnect air fitting adaptor from snap-in barb coupling on the compressed air hose.

DO NOT store applicator or feed tube full of product. Clean as per above "Care and Maintenance" instructions.

CARE AND MAINTENANCE OF APPLICATOR

To ensure continued high performance from the applicator,

PROBLEM	PROBABLE CAUSE	CORRECTIVE ACTION - CHECK POINTS
1 Applicator lacks power or not functioning.	No compressed air supply. Air transfer tube kinked or not attached to regulator or applicator. Inadequate air pressure. Regulator outlet port and fittings not firmly attached to the regulator.	Check: 1. Air compressor switched on and operates to 690 Kpa (100 psi). 2. No leaks in compressed air hose. Check air transfer tube for kinks and ensure it is firmly attached to the applicator and air regulator outlet port. Reset pressure on regulator. Wind black knob fully out, then wind in until pressure gauge reaches 414 to 550 kpa (60-80 psi). Ensure outlet port and brass fittings are firmly screwed into regulator. (Refer diagram enclosed with the regulator assembly).
2 Applicator leaking (compressed air).	Fault in tube connections from pressure regulator to trigger on applicator.	Fully close regulator valve, disconnect applicator from regulator outlet port by unscrewing regulator fitting on gas transfer tube. Return applicator to stockist or local distributor for service.
3 Applicator will not deliver full dose.	Applicator not primed or dose not set correctly. Foreign matter lodged under inlet valve. Foreign matter lodged in the delivery valve and spring assembly or a blockage in the spear.	Prime the applicator and set dose. Remove the inlet adaptor and inlet valve from applicator, clean with water and replace in applicator. Remove spear and delivery valve assembly from applicator, clean delivery valve assembly, nozzle fluid hole and re-assemble.
4 Slow applicator (fill and/or delivery rate of product).	Incorrect pressure setting on regulator. Chemical backpack is not collapsing as the applicator draws fluid. Kinking or restriction of the feed tube. Piston seal rings and piston lubricating washer are dry or not been lubricated.	Check and adjust regulator pressure to operate applicator between 414 to 550 kpa (60 – 80 psi). Vent backpack by removing it from your back, ensure backpack is upright. Gloves MUST be worn. Unscrew draw off cap to allow air into container. Re-tighten draw off cap and return it to your back to continue use. WARNING: Ensure you DO NOT inhale fumes of product or allow product to contact the body in any way or injury to the health of the operator may occur. Remove restriction or re-position the feed tube to avoid kinking. Remove cylinder from handpiece. Lubricate the piston seal rings and lubricating washer with NJ Phillips Lubricant as instructed. Lubricate the push rod shaft behind the piston.
5 Spitting of product from the spear or air being drawn into the cylinder from the spear end of applicator.	Foreign matter lodged in the delivery valve and spring assembly as in 3.3 above. Delivery cage seal ring damaged/missing. Spear seal ring damaged or missing. Incorrect assembly and location of the delivery valve in the delivery cage.	Remove spear and delivery valve assembly, clean valve seat of delivery cage by rinsing and wiping with a soft cloth. Clean valve and spring and re-assemble. Check delivery cage seal ring for wear or damage and replace if necessary. Check seal ring on spear for wear or damage and replace if necessary. Check that delivery valve and spring are clean and reassembled correctly.
6 Spray pattern drooping at end of stroke / incorrect dose.		Point gun up and operate to expel air.
7 Slow on return stroke.		Check and clean inlet valve and check delivery strainer, clean and refit.
8 Jerky return stroke.	Caused by not cleaning properly.	Put plenty of clean water (preferably containing NJ Phillips Lubricant) through the gun.
9 Slow return & delivery stroke.	Trigger valve may be sticking.	Put a small amount of fine clean oil in gas fitting.
10 Slow, incomplete delivery stroke.		Check and clean delivery valve and nozzle tip.
11 Cleaning gun.		Empty backpack and ensure it is clean, fill with clean soapy water and fire gun a number of times (set on full dose) to flush out product. Fill container with clean water and repeat. When storing the applicator, undo spear and pour NJ Phillips Lubricant into the cylinder obtaining a good coverage of the cylinder. Clean the tip, delivery valve and inlet valve regularly and re-lubricate.

WARRANTY & SERVICE

SCOPE OF WARRANTY
This warranty entitles you to repairs or replacement (at no charge) of any parts of the NJ Phillips Banana Tree Injector ("Product") found to be defective in materials or workmanship. Repair or replacement is at the option of NJ Phillips Pty Limited ("Company") or its authorised agent. This warranty is in addition to any rights and remedies extended to the owner under applicable laws, and is not intended to negate or restrict

such rights and remedies except where it is completed to do so. **WHAT IS NOT COVERED BY THIS WARRANTY**
Repair or replacement under this warranty is not available for faults or failure due to:
• ordinary wear and tear;
• accident, contamination, misuse, neglect, abuse or tampering;
• incorrect installation or

maintenance;
• failure to follow the Company's warnings, instructions, and recommendations for safe and effective use;
• the fitting or use of faulty, poor quality or incompatible associated parts or components;
• use of the applicator other than for its designed

purpose;
• use of the applicator with any product other than products specifically recommended by your stockist/local distributor or NJ Phillips Pty Limited.
repairs, alterations or modifications carried out other than by the Company or its authorised agent; or
any other cause occurring after the Product left the

Company's, stockist's or local distributor's control.
Subject to the operation of any laws to the contrary, this warranty does not cover:
• the costs of travelling or transportation of the Product or parts to and/or from the Company or its authorised agent;
• loss of the applicator or parts while in transit to or from the

Company or its authorised agent; or
personal injury, property damage, or economic loss or consequential loss or damage, howsoever caused.
The Company and its authorised agents reserve the right to number located on the handle charge their reasonable costs of the Product, and the date in investigating and correcting of purchase.
faults and failure caused other than by defects in materials or

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