# FIELD APPLICATION OF ADAMA CAPSULE PRODUCTS



The Adama InJecta system has been designed specifically for use with Adama and Di-Bak capsulated products. The InJecta system provides a fast and efficient approach for the delivery of capsule products into tree stems.

This document provides step by step instructions for the correct use of the Adama InJecta unit.





REMOVING THE MAGAZINE FROM THE INJECTA UNIT

# **STEP ONE**

Fully withdraw the drill bit to the rear position – the head unit cannot be opened otherwise.

# **STEP TWO**

Pull the knob at the front of the InJecta head unit to open the head mechanism.

# **STEP THREE**

Magazine can be removed by lifting off the spindle.









The Adama InJecta magazine is designed to hold 30 Di-bak capsules and sealing plugs. These are loaded in tandem into each of the 30 chambers. Note that the magazine has 31 chambers as one (in central position) must remain empty to allow for the initial drilling action. The inner section rotates in a clockwise direction.

# **STEP ONE**

Flip open the magazine lid.

# **STEP TWO**

Position inner section to centre the hole at position #1.

# **STEP THREE**

Load the wooden plugs singly into each of the 30 chambers keeping position #1 empty. Load the capsules individually into each of the 30 chambers (on-top of the plugs) again keeping position #1 empty.

Note that all 30 positions now show capsules at top (with position # 1 empty).







Note that plugs are visible at the rear of the magazine with position #1 empty.





# ENGAGING THE MAGAZINE WITH THE INJECTA UNIT



### STEP ONE

Fully withdraw the drill bit to the rear position – unit cannot be opened otherwise.

#### **STEP TWO**

Pull the knob at the front of the InJecta head to open the head mechanism.



#### STEP THREE

Place the loaded magazine unit onto the spindle with the lid facing forward, and matching the location of risers with the cut-outs.



#### **STEP FOUR**

Close the front. The magazine should now be firmly engaged and drill bit can be pushed forward through empty chamber (position # 1).



# **STEP FIVE**

Cordless drill can now be attached to drive shaft.

# **OPERATING THE INJECTA UNIT**

#### STEP 1

Hold the InJecta unit by the D handle with drill pulled back slightly to retract drill bit behind the pointed locator pins.

# STEP 2

Push the pointed locator pins on the front of the InJecta unit firmly onto the tree stem to provide grip. This can be done with a slight jabbing motion.

# STEP 3

While pushing the D handle forward (firmly towards the tree), drill into the stem until full depth is achieved with a clearing action.

While maintaining forward pressure on the D Handle, withdraw the drill bit clear of the hole and then stop drilling. The head unit should remain firmly pushed against the tree.







#### Capsule Placement

Placement of capsules into the tree is dependent upon tree size and number of stems. For chemical herbicides, this is a dose dependent process. Capsules should be placed in the stem at 20 cm above ground level, however placement further up the stem is possible provided that it is below major branching points.





# STEP 4

While maintaining forward pressure on the D handle - gently pull back on the drill unit to engage magazine, a clicking noise will be heard. This will rotate the chamber one position to load the plug and capsule in correct position.

#### STEP 5

Without re-starting the drill (in stationary mode) gently push drill bit forward to insert capsule and plug into drilled hole with a slight tamping motion.

It is not necessary to drive the plug deep into the tree, this will reduce the success of the treatment by compressing the capsule.

The InJecta unit can now be removed from the tree.

The plug should now be firmly placed and visible slightly above or level with the drill hole.

# **CHEMICAL PRODUCTS**

The dose required per tree stem is one capsule per 10cm of stem circumference. The chart below can be used as a guide.

**Dosing Chart: Chemical products** 

Stem circumference range	Max diameter (cm)	Dose
Up to 10cm	4	1 capsule
11 – 20cm	7	2 capsule
21 – 30cm	10	3 capsule
31 - 40cm	13	4 capsule
41 – 50cm	16	5 capsule

Stem circumference can be determined with a tape measure. With practice, estimation by eye is sufficient. Multiple doses must be distributed with equal spacing (one every 10 cm) in a ring around the stem. For two doses, place capsules on opposite sides of stem, for three - space in thirds and so on. Correct and equal spacing maximises the distribution of chemical herbicide around the trunk. For multiple stemmed targets, each stem emerging from the ground should be treated individually according to size.

#### **Biological products:**

Biological products are not dose dependent in the same way as chemical herbicide products. The Di-Bak biological agents create an infection process once inserted into the tree, therefore a single capsule is sufficient to cause disease and eventual death of the treated plant. However, where the target plant is exceptionally large, or has multiple stems, treatment with multiple capsules will lead to faster establishment of dieback.

### Dosing Chart: Biological products (e.g. Di-Bak Parkinsonia)

Tree form	Dosage
Single-stem tree	1 capsule
Multi-stemmed tree	1 capsule per stem
Very large trees	Multiple capsules spaced around stem (optional)

Capsules should be injected at a height of 20cm above soil level where possible.

Please visit www.adama.com for more information



