

# CHEMPAC AFRICAN BOLLWORM LURES

Reg No. L8416 Act No. 36 of 1947

A pheromone dispenser designed to attract male African Bollworm Moths to a Bucket Funnel or Chempac Yellow Delta monitoring trap in cereals and deciduous fruit and citrus orchards.

'n Feromoon vrylater, ontwerp om manlike Afrika Bolwurm motte na 'n "Bucket Funnel" of "Chempac Yellow Delta" moniteringslokval aan te lok in graangewasse en sagte vrugte en sitrus boorde.

ACTIVE INGREDIENT:

Z-11-Hexadecenal 3,18 mg/dispenser  
Z-9- Hexadecenal 0.32 mg/dispenser

AKTIEWE BESTANDEEL:

Z-11-Heksadekenal  
Z-9- Heksadekenal

Contents

**4**  
Pheromone dispensers

Inhoud

Registered by:

**Chempac (Pty) Ltd**  
Co.Reg.No. 2002/007885/07  
P O Box 516  
Suider Paarl 7624  
Tel.No. (021) 874 1055



Geregistreer deur:

**Chempac (Edms) Bpk**  
Mpy.Reg.Nr 2002/007885/07  
Posbus 516  
Suider-Paarl 7624  
Tel.Nr (021) 874 1055

STORE UNDER COOL CONDITIONS PREFERABLY IN A REFRIGERATOR. DO NOT FREEZE

BEFORE YOU OPEN THE SACHET READ THE ENCLOSED PAMPHLET IN ITS ENTIRETY

STOOR ONDER KOEL TOESTANDE VERKIESLIK IN 'N KOELKAS. MOET NIE VRIES NIE

LEES DIE INGESLOTE PAMFLET VOLLEDIG VOORDAT U DIE OMHULSEL OOPMAAK

Batch Number

Lotnommer

Date of Manufacture

Vervaardigingsdatum



## CHEMPAC AFRICAN BOLLWORM

**A pheromone dispenser designed to attract male African Bollworm Moths to a Bucket Funnel or Chempac Yellow Delta monitoring trap in cereals and deciduous fruit and citrus orchards.**

### **Active ingredients:**

Z-11-Hexadecenal	3.18 mg/ dispenser
Z-9- Hexadecenal	0.32 mg/ dispenser

### **WARNINGS :**

1. Store under cool conditions preferably in a refrigerator. Do not freeze.
2. Store away from food and feed.
3. Keep out of reach of children and animals.

Although this attractant has been extensively tested under a large variety of conditions, the registration holder does not warrant that it will be efficacious under all conditions because the action and effect thereof may be affected by factors such as abnormal climatic and storage conditions; as well as by the method, time and accuracy of use. The registration holder furthermore does not accept responsibility for lack of performance of the remedy concerned due to failure of the user to follow the label instructions or to the occurrence of conditions that could not have been foreseen in terms of the registration. Consult the supplier in the event of any uncertainty.

### **PRECAUTIONS :**

1. Destroy empty sachet and do not re-use for any other purpose.
2. Destroy dispenser after use.

### **DIRECTIONS FOR USE : Use only as directed.**

Chempac African Bollworm lures are designed for use in a Bucket Funnel or Chempac Yellow Delta Trap to monitor African Bollworm in cereals, deciduous fruit and citrus orchards. Instructions for assembly accompany the trap packaging.

### **Positioning of lure:**

When used in combination with the Chempac Yellow Delta trap, the lure is placed in the centre of the sticky pad that lies on the base of the trap. When used with Bucket Funnel traps, lures are placed in the small baskets attached to the lid of traps.

### **Positioning the trap in the orchard:**

#### *Fruit crops:*

Plan the outlay of the monitoring system with the help of either an aerial photograph or map of the area that is to be monitored. Mark and number blocks that are ecologically uniform in respect of topography, windbreaks as well as size and density of trees. In these uniform blocks traps must not be positioned more densely than one trap for every 2 hectares. The exact radius of effective attraction has not accurately been determined but international studies indicate that moths as far as 3 km could be attracted to bollworm lures. It is generally accepted that one trap per 2 to 3 hectares will assist greatly in the early detection and population fluctuations of African Bollworm.

In a level uniform orchard the trap must be hung more or less in the middle of the area which will be covered by the trap. However, the trap should be placed in such a way which will allow free diffusion of the attractant throughout the entire monitoring area. The pheromone is heavier than air and therefore in a sloping orchard the trap should be placed 2/3 up the slope.

More traps may be necessary if factors such as slopes, size and shape of the block as well as prevailing wind directions are considered. Your Agrochemical representative can be of assistance with the planning. Each trap should be numbered for identification and reference. Each trap is supplied with a marker, which should be used to identify the row in which the trap is hanging.

#### *Cereal crops:*

Air and adult moth movement are not affected by trees in cereal crops and it therefore as a general rule recommended that African Bollworm traps be placed at a density of one trap per five hectares.

### **Positioning the trap in trees:**

Hang the trap at head height ( $\pm 1.80$  m) on an outside limb of a tree. Prune away excessive shoots and leaves. It is important that the trap is hung where it will not be damaged by tractors, spray machinery or come in direct contact with water from irrigation sprinklers.

### **Timing of trap placement:**

Traps should be hung at the beginning of August.

### **Method of monitoring:**

It is absolutely necessary that trap catches be recorded weekly and preferably on the same day each week. After moth counts have been recorded in Yellow Delta traps moths should be removed from the sticky pad using the implement supplied with the trap. Moths caught in the Bucket Funnel trap should be discarded every week.

### **Lure replacement**

Lures should be replaced every 4 to 6 weeks. Ensure that used lures are removed from the orchard and destroyed.

### **Yellow Delta Trap maintenance:**

1. The sticky pads must be stirred regularly to maintain maximum stickiness. A layer of dust as well as residues from insects, leaves, etc. on the sticky layer, may reduce trap efficiency if not stirred regularly. Unless the sticky pads are in very good condition, it is recommended that they be replaced at 6 week intervals.
2. Traps are designed to last for at least 2 seasons provided they are properly maintained which entails removing them from the orchard after harvest and repositioning them the following season.

### **African Bollworm Identification:**

Refer to your Agrochemical representative.

### **Interpretation of trap catches:**

Graphing trap counts gives a visual reference of the flight pattern and peaks in each orchard. Interpreting data should be done in conjunction with your Agrochemical representative and in consultation with researchers and field consultants. In areas where alternative hosts for African Bollworm are present, trap counts might not necessarily correlate with crop damage because these alternative hosts might be preferred by the pest.

The trapping programme must be regarded as a valuable indicator of African Bollworm activity but regular visual crop inspections are still vital as several factors, such as changes in temperature or wind patterns hosts may alter trap catches significantly.

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### Aktiewe bestanddele :

Z-11-Heksadekenal	3.18 mg/ vrylater
Z-9- Heksadekenal	0.32 mg/ vrylater

### WAARSKUWINGS :

1. Stoor onder koel omstandighede verkieslik in 'n koelkas. Moet nie vries nie.
2. Stoor weg van voedsel en voer.
3. Hou buite bereik van kinders.

Alhoewel hierdie lokmiddel omvattend onder 'n groot verskeidenheid toestande getoets is, waarborg die registrasiehouer nie dat dit onder alle toestande doeltreffend sal wees nie aangesien die werking en effek daarvan beïnvloed kan word deur faktore soos abnormale klimaats- en bergingstoestande; sowel as die metode, tyd en akkuraatheid van toediening. Verder aanvaar die registrasiehouer nie verantwoordelikheid vir 'n gebrek aan prestasie van die betrokke middel as gevolg van die versuim van die gebruiker om etiketaanwysings na te kom of as gevolg van die ontstaan van toestande wat nie kragtens die registrasie voorsien kon word nie. Raadpleeg die verskaffer in die geval van enige onsekerheid.

### VOORSORGMATREËLS :

1. Vernietig leë verpakking en moet nie vir enige doel hergebruik nie.
2. Vernietig vrylater na gebruik.

### GEBRUIKSAANWYSINGS :

 Gebruik soos aangedui.

Die lokmiddel is ontwerp vir gebruik in 'n "Bucket Funnel" en Chempac Geel Delta lokval vir die monitering van Afrika Bolwurm in graangewasse en sagtevrugte- en sitrusboorde. Moniteringsinstruksies vir lokvalle word in lokvalverpakkings ingesluit.

### Plasing van die lokmiddel:

Wanneer Geel Delta valle gebruik word, word die lokmiddel in die middel van die klewerige vloer wat die bodem van die lokval bedek geplaas. In "Bucket Funnel" valle word die lokmiddel in die mandjie in die boonste deksel van die val geplaas.

### Plasing van lokval in die boord:

#### Vruggewasse:

Beplan die plasing van die lokvalle met behulp van 'n lugfoto of kaart van die gebied wat gemoniteer moet word. Merk en nommer blokke wat ekologies uniform is ten opsigte van topografie, windskerms asook grootte en digtheid van bome. In hierdie uniforme blokke moet die digtheid van die lokvalle nie een lokval per twee hektaar oorskry nie en moet lokval ongeveer in die middel van die gebied wat deur die betrokke lokval gedek word, hang maar moet so geplaas word dat vrye verspreiding van die lokmiddel (feromoon) oor die hele vanggebied kan plaasvind. Die feromoon is swaarder as lug en in 'n boord met 'n helling moet die lokval dus 2/3 teen die helling opgehang word.

Meer lokvalle mag nodig wees indien faktore soos helling, grootte en vorm van die blok asook heersende windrigting in aanmerking geneem word. As 'n algemene reël moet lokvalle nie meer as 150 meter van mekaar gehang word nie. U landbouchemikalieë verteenwoordiger kan u met hierdie beplanning behulpsaam wees.

Merk elke lokval met 'n nommer vir identifikasie en verwysings doeleindes. Met elke lokval word 'n merker verskaf om die ry waarin die lokval hang te identifiseer.

#### Graangewasse:

As 'n algemene reël word een val per vyf hektaar geplaas.

### Plasing van lokval in die boom:

Hang die lokval op ongeveer kophoogte ( $\pm 1,80$  m) aan 'n buitetak van die boom. Snoei oorbodige blare en lote weg. Dit is belangrik om lokvalle te hang op plekke waar hulle nie deur trekkers, spuitmasjiene of deur direkte kontak met sprinkelbesproeiingswater beskadig sal word nie.

### Tydsberekening van lokval plasing:

Plaas valle uit aan die begin van Augustus.

### Metode van monitering:

Dit is uiters noodsaaklik om lokvalvangste weekliks en verkieslik op dieselfde dag elke week aan te teken. Nadat mottellings aangeteken is, moet die motte in Geel Delta valle met die ingeslote implement van die klewerige vloer verwyder word. Motte moet elke week uit die "Bucket Funnel" valle uitgooi word.

### Vervanging van lokmiddels:

Lokmiddels moet elke 4 tot 6 weke vervang word. Maak seker dat gebruikte lokmiddels uit die boord verwyder en vernietig word.

### Geel Delta Lokval onderhoud:

1. Die gomlaag op die klewerige vloer van die lokval moet gereeld geroer word om maksimum klewerigheid te behou. 'n Stoflagie op die gom asook insekreste mag die effektiwiteit van die lokval benadeel. Indien klewerige vloere nie in 'n baie goeie toestand is nie, moet dit elke ses weke vervang word.
2. CHEMPAC Geel Delta lokvalle is ontwerp om vir ten minste twee seisoene gebruik te kan word indien dit goed onderhou word deur dit onder andere na oes uit boorde te verwyder. Maak seker dat lokvalle altyd in opeenvolgende seisoene aan dieselfde boom gehang word.

### Identifikasie van Afrika Bolwurm:

Kontak u naaste Landbouchemikalieë verteenwoordiger.

### Interpretasie van lokvalvangste :

Grafiese voorstelling van die lokvaltellings gee 'n visuele beeld van motvlugpatrone en -pieke. Die vertolking van die data behoort in samewerking met u landbouchemikalieë verteenwoordiger en in oorleg met navorsers en veldkonsultante gedoen te word. In gebiede waar alternatiewe gashere vir Afrika Bolwurm voorkom is dit moontlik dat daar nie 'n goeie korrelasie sal wees tussen motvangste en gewasskade nie aangesien motte alternatiewe gashere mag verkies.

Die lokvalstelsel kan as waardevolle aanwyser van Afrika Bolwurm aktiwiteit gesien word, maar gereelde visuele gewasinspeksies moet nie nagelaat word nie aangesien verskeie faktore soos temperatuurskommings of windpatrone die lokvalvangste betekenisvol kan beïnvloed.