

The pine shoot beetle, *Tomicus destruens*, is considered the most aggressive pest for the Mediterranean pine forest. Every year it causes the death of trees and even, in periods of intense and prolonged drought, its attacks can affect huge masses of pine forest.

*Tomicus destruens* produces two types of damage: subcortical galleries in the trunk and thick branches; and galleries in the small branches of the crowns. The attack in the crowns causes the death of small branches when the imagoes insert themselves into the pith of the dying branches, to feed.



Branches perforated by *Tomicus destruens* and blown down by the wind

Nonetheless, the attacks in the trunk are always deadly. This is due to the fact that through the maternal galleries and most of the larval galleries fungus is introduced, which deteriorates the phloem of the gallery perimeter.

In case of a severe infestation, the larval galleries cause a secure death of the tree because the circulation of sap is completely hampered.

The first symptom is detected when the crown turns yellow. In advanced stages of infestation, it turns to reddish and then, the pine tree dies.

The pines that have been attacked are easily identified because of the volcanoes of yellow resin that surround the entrance holes.



Volcanoes of resin

**SANIDAD AGRÍCOLA ECONEX, S.L.** only guarantees the composition, formulation and content of the products, taking responsibility for the direct, immediate and exclusive damages caused in the composition, formulation and content of the products sold. **SANIDAD AGRÍCOLA ECONEX, S.L.** will not be held responsible for damages produced by factors beyond the company's control that have either totally or partially contributed. For instance, the weather conditions, usage or mixing with other products, amongst others. In addition, **SANIDAD AGRÍCOLA ECONEX, S.L.** will provide recommendations and information supported by extensive and meticulous research and tests; which must be taken into account by the customer when using the products. The customer will be responsible for any damage caused, in whole or in part, for the total or partial non-observance of the instructions provided. Furthermore, the customer will be responsible for all that is referred to as the performance of the products; which comes from total or partial non-observance of the instructions and information provided by the company.

# ECONEX TOMICUS REPELLENT 120 DAYS

“Push - pull” strategy



## SOLUTIONS OVERVIEW

CODE	TRADE NAME	IMAGE
VA308	<b>ECONEX TOMICUS REPELLENT 120 DAYS</b> <i>Tomicus destruens</i> repellent diffuser with 120 days duration.	
VA250	<b>ECONEX TOMICUS DESTRUENS 60 DAYS</b> Kairomone diffusers with 60 days duration.	
TA204	<b>CROSSTRAP® MINI WITH DRY COLLECTION CUP</b>	
TA147	<b>ECONEX CROSSTRAP® SUPPORT</b>	
TA157	<b>CROSSTRAP® DRY COLLECTION CUP</b>	

## SANIDAD AGRÍCOLA ECONEX, S.L.

C/ Mayor, Nº 15 Bis · Edificio ECONEX · 30149 SISCAR-Santomera · Murcia (Spain, EU)  
Tel. +34 968 86 03 82 / +34 968 86 40 88 · Fax +34 968 86 23 42 · **Customer Service:**  
+34 900 502 401 [www.e-econex.eu](http://www.e-econex.eu) · e-mail: [econex@e-econex.com](mailto:econex@e-econex.com)

**24 / 48 h.**  
Service

Mainland Spain

Please ask for other destinations



DISTRIBUTED BY:



Valid until May 14th 2024

**PRODUCTS MADE IN SPAIN**  
© SANIDAD AGRÍCOLA ECONEX S.L., 2022



# ECONEX TOMICUS REPELLENT 120 DAYS

“Push - pull” strategy

Repellents and traps for the protection of individual pines in situations of risk

[www.tomicusdestruens.eu](http://www.tomicusdestruens.eu)



Photo T. Destruens © José Luis Lencina

**ECONEX®**  
PHEROMONES AND TRAPS  
Since 1986

**35**  
1986-2021  
Anniversary



## DESCRIPTION

CODE	TRADE NAME
VA308	<b>ECONEX TOMICUS REPELLENT 120 DAYS</b> <i>Tomicus destruens</i> repellent diffuser with 120 days duration. Its use is recommended for the protection of individual pines in situations of risk in parks, private gardens or public gardens, as well as singular and monumental pines.

This diffuser, which is in a blister pack, acts as a repellent for *Tomicus destruens*, having shown a reduction in captures between 70 and 80 % in traps with *T. destruens* attractants and these diffusers, compared to the same traps without this repellent.



**ECONEX TOMICUS REPELLENT 120 DAYS.**  
Packaging and repellent diffuser.

The repellent has to be used following the “Push - pull” strategy. It means, to utilise at the same time, repellents and traps with attractants. *Tomicus* is repelled from pine trees and it is simultaneously attracted towards traps.

To optimize its effectiveness, it is recommended to install, near the pines that need to be protected, a **CROSSTRAP® MINI WITH DRY COLLECTION CUP** with the kairomonal attractants **ECONEX TOMICUS DESTRUENS 60 DAYS**. A minimum distance from about 20 to 50 m between the pines and the trap has to be maintained, in order to ensure the insects go to the trap and not to the protected trees.



Packaging and diffuser A      Packaging and diffuser B

### ECONEX TOMICUS DESTRUENS 60 DAYS

Diffusers of kairomonal attractant for males and females of *Tomicus destruens*

The management of *Tomicus destruens* in parks, gardens and residential areas presents some peculiarities that differentiate it from management in forest environments. The biggest risk of attack in ornamental trees is caused by mechanical damage.

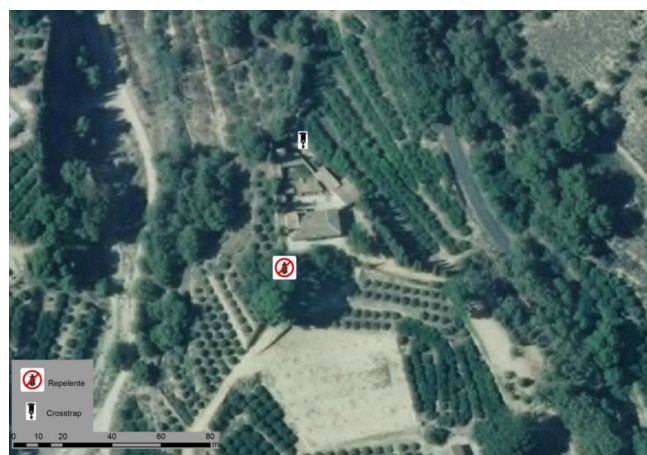
Work involving excavation around the trees destroys the roots in a more or less severe way. So, pine trees often become weak that facilitate the attacks by *Tomicus*. In general, ornamental trees are not very vulnerable to attacks by *Tomicus*, provided that they maintain the same conditions that they grew in. Sometimes, placing or removing irrigation systems in garden areas can provoke attacks from these insects.

The control of *Tomicus destruens* in these situations must be very effective, as it is about reducing the mortality rate of the pine trees to zero.

Therefore, efforts should be made to intensify trapping to the maximum. This means a **density of 3 traps per ha** which should be controlled every week.



Kairomone diffusers **ECONEX TOMICUS DESTRUENS 60 DAYS** placed in a **CROSSTRAP® MINI WITH DRY COLLECTION CUP**



**Example of installation of repellents and traps protecting individual pines** against *T. destruens* in gardens. The distance between the trap and the pine tree with the repellents is 50 m.

## DIFFUSERS INSTALLATION GUIDE

A repellent diffuser should be placed every 4 lineal meters of the trunk, until the bark becomes thinner. The diffusers will be placed by nailing them to knots or other areas of dead wood in the pine tree.

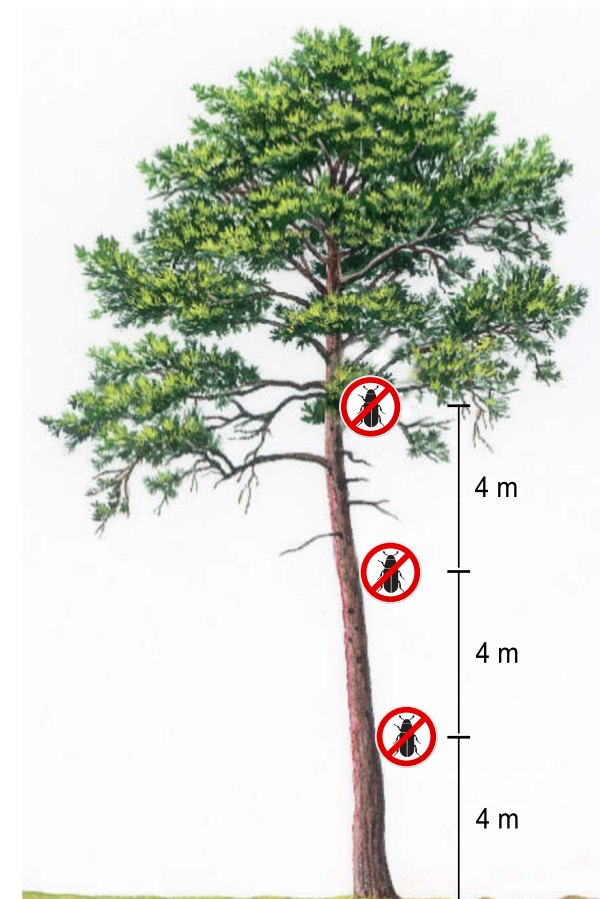


Diagram showing in the installation of the **ECONEX TOMICUS REPELLENT 120 DAYS** diffusers protecting a pine tree that is about 20 m high.

## STORING THE DIFFUSERS

### ECONEX TOMICUS REPELLENT 120 DAYS

The product must be stored in its original packaging without opening it and in the refrigerator at 4 °C; or in the freezer at -18 °C, in which case it will last between 2 and 4 years respectively.

### ECONEX TOMICUS DESTRUENS 60 DAYS

The product should not be stocked for a long time. It must be stored in its original packaging without opening it and in the refrigerator at 4 °C; or in the freezer at -18 °C, in which case it will last between 90 and 150 days respectively.