FAO Project TCP/LEB/0169
The Cedar Web-Spinning Sawfly, Cephalecia tannourinensis Chevin

Prepared by
Nasri S. Kawar and Nabil M. Nemer

December 2002
The cycle was initiated by a study of the needle traits and anatomy of the needles. The study revealed that the needles were located at the tips of the branches, and they were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.

The needles were found to be rich in nutrients, which is a common characteristic of healthy trees. The study also revealed that the needles were highly resistant to decay. The needles were also found to be rich in nutrients, which is a common characteristic of healthy trees.
CONTROL

Defoliation is based on the aesthetic value of the landscape and is often used to enhance the visual appeal of forests. It is particularly effective in areas where the landscape is dominated by a single species of tree. Defoliation can be achieved using various methods, including hand harvesting, mechanical harvesting, and chemical defoliation. Each method has its own advantages and disadvantages, and the choice of method depends on the specific conditions of the forest and the desired outcome.

In forest management, defoliation is used to control specific tree species, such as invasive species, or to enhance the natural regeneration of native species. It can also be used to improve the health of trees by reducing competition for resources and removing diseased or damaged foliage. However, defoliation must be done carefully to avoid harming other species or disrupting the ecosystem.
Ministry of Agriculture
Rural Development and Natural Resources
Directorate, Beirut, Lebanon.

FAO Project TCP/LEB/0169
Protection of the Forests with Particular Emphasis on the
New Pest *Cephalcia tannourinensis* Infesting *Lebanon Cedars*.

**Project Coordinator**
Ghattas AKL  Agricultural Engineer, Ministry of Agriculture, Director of
the Rural Development and Natural Resources Directorate

**National Project Team**
Kawar, Nasri  (Professor, American University of Beirut)
Nemer, Nabil  (Researcher, American University of Beirut)
Tamim, Zeina  (Agricultural Engineer, Ministry of Agriculture)
Bassil, Michel (Forest Engineer, Ministry of Agriculture)