# Disappearance of bees in Estonia

Compiler: Renno Lainevool Viljandi 2012, Estonia

#### Introduction

In Estonia and globally we are taking continuously about disappearance of bees. However we hardly can find enough information and researche about reason of these issues. Therefore, I made inquiry. To get first picture we investigated 1000 colonies. One of the conditions was – this inquiry is not to looking for culprits and not intimidating with VET. All participants are 100% anonymous and the results will not be made public. I have the plan to make some other inquiry in the future

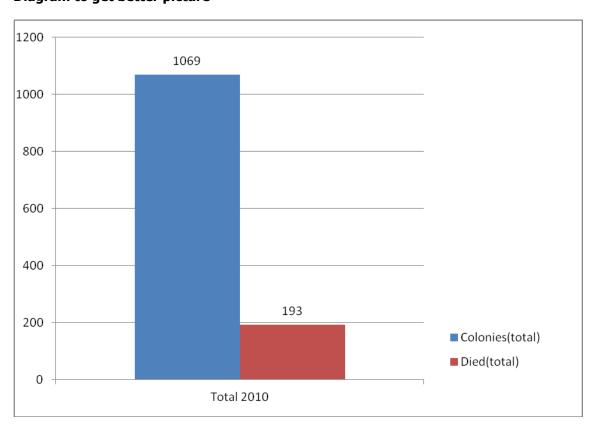
Inquiry contained of 6 textboxes:

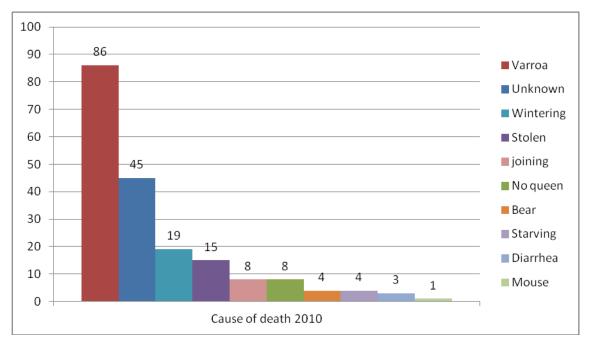
- County. To establish problems in different counties
- **Year.** Beekeeper wrote how many colonies he had in specific year. To detect year it is important to prevent frequently inserts. In this respect we discuss primarily 2011 year but in source data contains previous data as well
- **Colonies.** Main reason, to find out colonie collaps precent
- Died. Number of dead colonies (main target of this inquiry)
- Reason. Reason of collaps for classification
- **e-mail.** For specify data

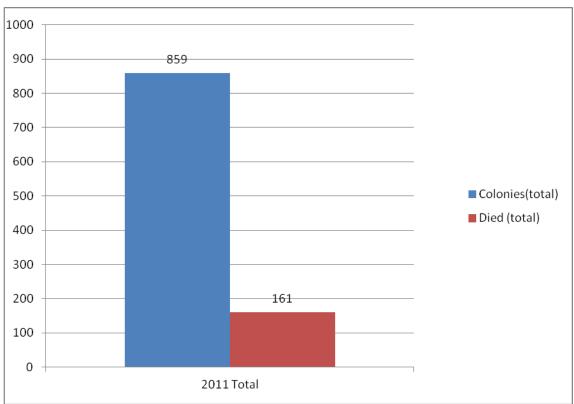
Inquiry was up in

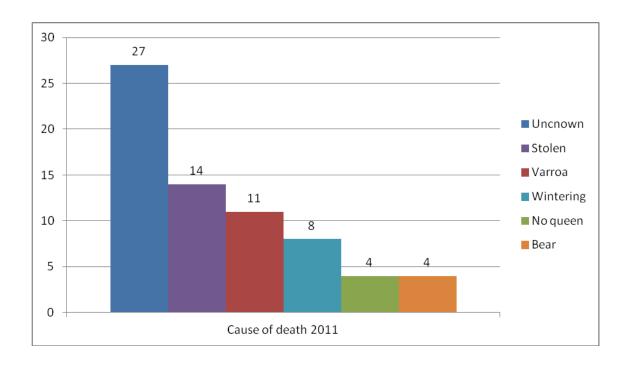
http://www.inkassi.pri.ee/index.php?option=com fabrik&view=form&fabrik=3&random=0&Itemid=40

#### Diagram to get better picture





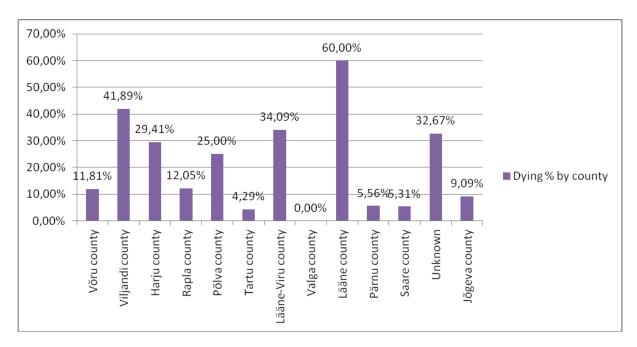




# **Explaining of reasons**

- **-Varroa**. Normally "varroa" had been written into the cause other problems box. (f.e probably varroa damage...)
- **Unknown**. Such reasons where beekeeper could not find the exact cause. Fe. Colonies had got after feeding and varroa treatment. Combs are full of honey, few dead bees on the hive floor
  - Wintering. Just died in winter.
  - Stealing. Stolen by human
  - **Joining**. Merge weak colonies in spring.
  - **No queen.** Dying on the reason of queen.
  - Bear. Bear went to explain hives inside
  - **Starving**. Dying for missing food.
  - Diarrhea.
  - Mouse.

## Dying by county



### **Summary**

We can see that first problem is varroa. Many of older beekeepers had not heard anything about varroa treatment. The second big problem is ignorance. This means we need more research and deeper research inc varroa problem. For me, as beginner beekeeper, it seems many beekeepers thought that varroa is the reason of bees dying and not studing deeper

#### Future.

I have plan to do the next inquiry in autumn 2011 to 2012 autumn. Information about new inquiry can be found on webpage http://www.inkassi.pri.ee

## Target to 2012

The arget of next inquiry is observation of 2500 colonies at least. It is 5% of estimated number of colonies). I have the plan to analyze more accurate reasons involved with bees dying and create solidarity foundation to this scientific reasearch in labs.