



This study focuses on the evaluation of sugarcane pests and their control measures. The objective of the study is to understand the various pests that attack sugarcane and the impact they have on the crop, and to explore different control measures that can be implemented to mitigate the damage caused by these pests. The study also examines the effectiveness of Integrated Pest Management (IPM) approaches in controlling sugarcane pests.

The findings of this study will provide valuable information to farmers, policymakers, and researchers, and will contribute to the improvement of sugarcane production and the development of sustainable pest management practices.

### **MATERIALS AND METHODS:**

The material and methods used in the study of sugarcane pests and their control measures typically involve the following steps:

**Identification of pests:** The first step in the evaluation of sugarcane pests is to identify the pests that are present in the field. This is typically done through visual inspection of the crop and by collecting samples of the pests for further analysis.

**Assessment of pest impact:** The next step is to assess the impact of the pests on the crop. This is done by measuring the amount of damage caused by the pests and by estimating the loss in crop yield and quality.

**Collection of data:** Data is collected on various aspects of the pests, including their life cycle, behavior, and population dynamics. This information is used to develop effective control measures.

**Development of control measures:** Based on the data collected, control measures are developed to manage the pests. This may involve cultural, biological, chemical, or a combination of control methods.

**Implementation of control measures:** The control measures are implemented in the field, and their effectiveness is monitored and evaluated.

**Assessment of the effectiveness of control measures:** The effectiveness of the control measures is assessed by measuring the impact of the pests on the crop after the control measures have been implemented.

**Development of Integrated Pest Management (IPM) strategies:** Based on the results of the evaluation, IPM strategies are developed to control the pests effectively and sustainably.

The material and methods used in the study of sugarcane pests and their control measures may vary depending on the specific goals and objectives of the study, as well as the resources available. However, the overall approach to evaluating sugarcane pests and their control measures involves the collection of data, the development of control measures, and the assessment of their effectiveness.

### **RESULTS AND DISCUSSION:**

#### **Red Rot disease:**

Cane erythema is caused by the fungus *Glomerella tucumanensis*. [A. Sivanesan and J. M. Waller, (1986)]. Red rot appears on the stem or spots with red spots and white centers and is recognized as a bundle of red blood vessels [A. Sivanesan and J. M. Waller, (1986), K. L. Trenor and R. A. Bailey(1989)]. Red rot is transmitted mainly from contaminated plant debris in the pores of water and soil. Agricultural and moisturizing agents, which typically infect insects, especially stems and termites, fungi and secondary invaders, accelerate the development of the disease. [A. Sivanesan and J. M. Waller, (1986), K. L. Trenor and R.A. Bailey (1989), Bailey, R.A. and G. R. Betchet (1982)]. Red blood cells reduce sucrose in infected plants and increase processing costs due to impurities in the sap, while red artillery significantly reduces the germination rate of infected plants for planting [A. Sivanesan and J. M. Waller, (1986)].

### **Control:**

1. Planting resistant varieties [V. A. Awoderu and B. A. Okusanya (1978)].
2. Loosen the injured mass during the growing season.
3. Protect the weed less field and avoid planting in contaminated fields where plants were previously affected.
4. 2-3 years of soybean harvesting practice (without grain).
5. A grid of healthy plants. It is necessary to remove dirt that indicates redness at the edges of the wound or part of a node or hole in the stem.

The results of studies on the evaluation of sugarcane pests and their control measures can vary widely depending on the specific pests and control measures that are being evaluated. However, some general trends and findings can be noted.

**Pest identification:** The results of the pest identification process typically reveal the specific pests that are attacking the sugarcane crop and the extent of their distribution. This information is crucial in determining the impact of the pests on the crop and in developing effective control measures.

**Assessment of pest impact:** The results of the assessment of pest impact typically show the amount of damage caused by the pests and the impact on crop yield and quality. This information is important in determining the economic impact of the pests and in developing strategies to minimize the damage caused by the pests.

**Control measure effectiveness:** The results of the evaluation of control measures typically show the effectiveness of the various control methods in reducing the population of pests and mitigating the damage caused by the pests. Integrated Pest Management (IPM) approaches are often found to be more effective in controlling pests compared to a single method, as they reduce the reliance on pesticides and minimize their negative impact on the environment.

**Adoption of IPM strategies:** The results of the study can inform the adoption of IPM strategies by farmers and policymakers, leading to the implementation of sustainable pest management practices in sugarcane production.

In conclusion, the results of studies on the evaluation of sugarcane pests and their control measures provide valuable information on the specific pests that attack the crop, the impact of the pests on the crop, and the effectiveness of different control measures. These findings can inform the development of effective and sustainable pest management strategies in sugarcane production.

### **CONCLUSION:**

Studies have shown that Integrated Pest Management (IPM) approaches, which combine different control methods, are more effective in controlling sugarcane pests compared to a single method. IPM approaches also reduce the reliance on pesticides and minimize their negative impact on the environment. In conclusion, the evaluation of sugarcane pests and their control measures is essential for improving crop productivity and quality. The adoption of IPM approaches is recommended for effective and sustainable pest management in sugarcane production.

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