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INTRODUCTION

Climate change influences significantly agriculture in many ways. One of the changes noticed during last decade is altered behaviour of insects. **Rape stem weevil** (*Ceutorhynchus napi* Gyll.) and **cabbage stem weevil** (*C. pallidactylus* Marsh.) are economically important pests of oilseed rape (*Brassica napus* L.) in Europe, and can cause significant yield losses. Their abundance and time of occurrence after winter diapause vary depending on the year and location, which affects the optimal time for their control. Since oilseed rape stem weevils become active early in the spring, environmental factors, especially temperature, play a significant role in their activity.

MATERIAL AND METHOD

The data was obtained within multi-year monitoring program of oilseed rape pests. Stem weevil adults were collected using four yellow water traps (Moericke dishes) placed at different positions in oilseed rape field during period from 2010 until 2024 (with the exception of 2014. and 2015.), at the location Rimski Šančevi, in the vicinity of Novi Sad, Serbia. In each yellow water trap tap water (cca 0,5 l) and a few drops of liquid soap was added. The traps were emptied every seven days. The time of first occurrence was noted when two or more specimens were collected.

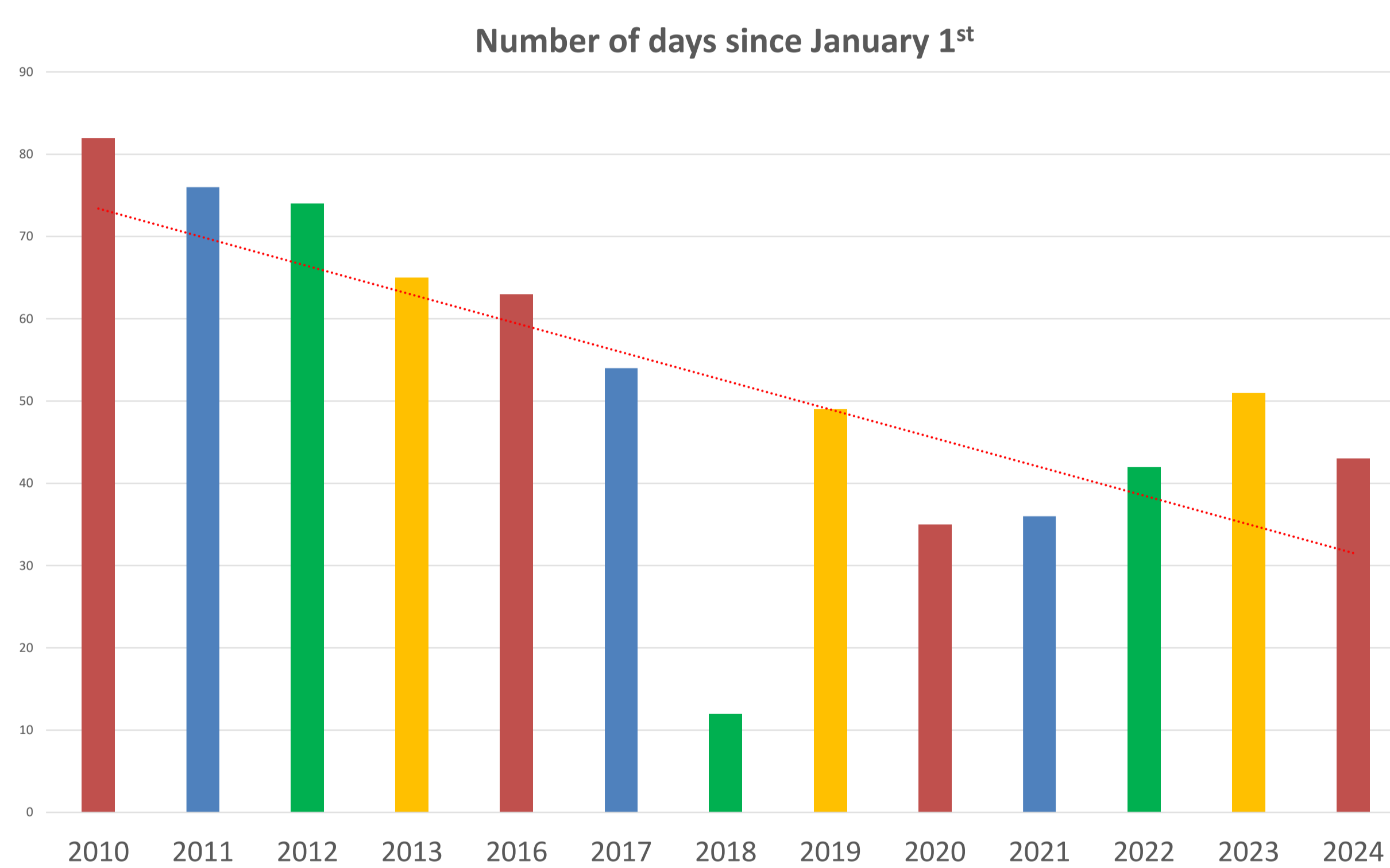


Figure 1. Time of stem weevils first occurrence

RESULTS

Based on the obtained results it can be seen that before 2016 the timing of the first occurrence was always in March while from 2017 it was in February, with the exception of 2018 when it was in January (Fig. 1). The earliest occurrence was on 12th of January 2018 while the latest was on 23th March 2010. The average date of occurrence was around 21st February. If analysed separately periods from 2010 to 2016 and 2017 to 2024 it can be seen that the average time of first occurrence was 13th of March and 10th of February respectively which presents a difference of more than 30 days.

CONCLUSION

Following the analysis of the obtained results, it can be concluded that there is a trend towards earlier occurrence after winter diapause and a shift in oilseed rape stem weevils' activity. Therefore, the timing for stem weevils' control should be adjusted each year and for each location, based exclusively on pest monitoring. Untimely treatments or even lack of control in fields where the economic threshold is breached can cause significant or even total yield losses.

