

The Magic of Marigold Guards In The Vegetable Garden

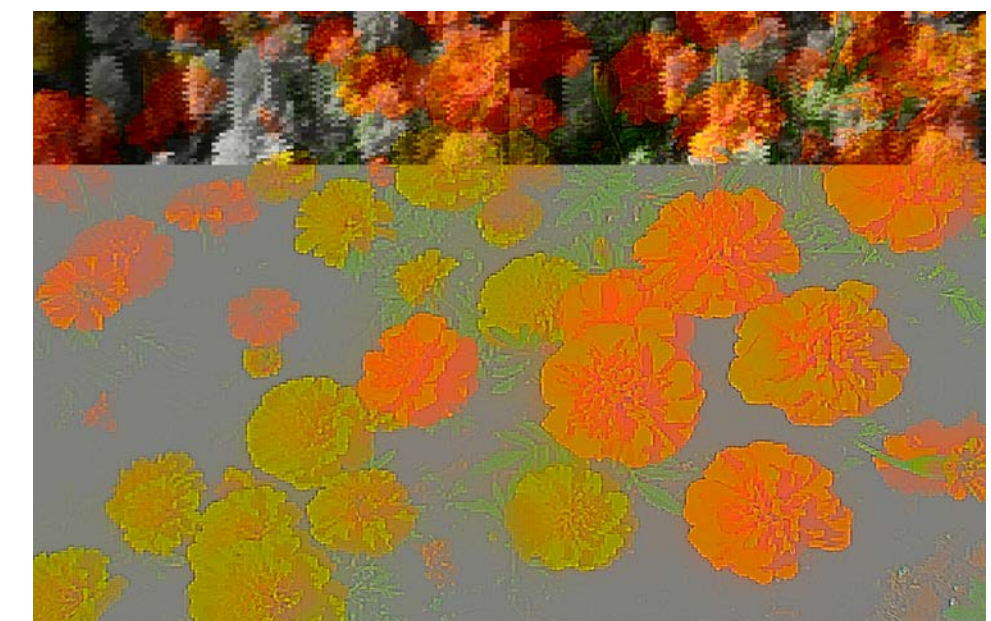
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Abstract:

Marigold flowers (*Tegetes spp.*) are flowering plants commonly used for home decoration. However, most of people are unaware of other uses that the marigold flowers can also be used as biological control against insect pests which attack and destroy vegetables in the garden resulting into low yield and poor quality vegetables. Therefore, this project aimed to create awareness to the school members and the surrounding community on how they can grow marigolds in their gardens as biological control of insects which normally feed on vegetables and finally results into reduced yield and quality. That being the case, this project proposed to test the efficacy of marigold in protecting Chinese cabbage from insect pests. Plots of Chinese cabbage with and without marigold were used.



Method:

Seeds were sown in a well prepared nursery plot, (2m x3m) and have been watered once per day every week.

Other plots were prepared ready for transplanting the *Brassica rapa* subsp. *chinensis* (Chinese cabbage), the common vegetable in home gardens

The well established seedlings of the Chinese cabbage and marigold flowers (10cm long) were transplanted into three plots.

In each plot, two lines were planted at the middle while the marigold flower seedlings were planted at each side of the plot to ensure fully protection of the Chinese cabbage from pests.

The other three plots without marigold flowers were maintained as control of experiment.

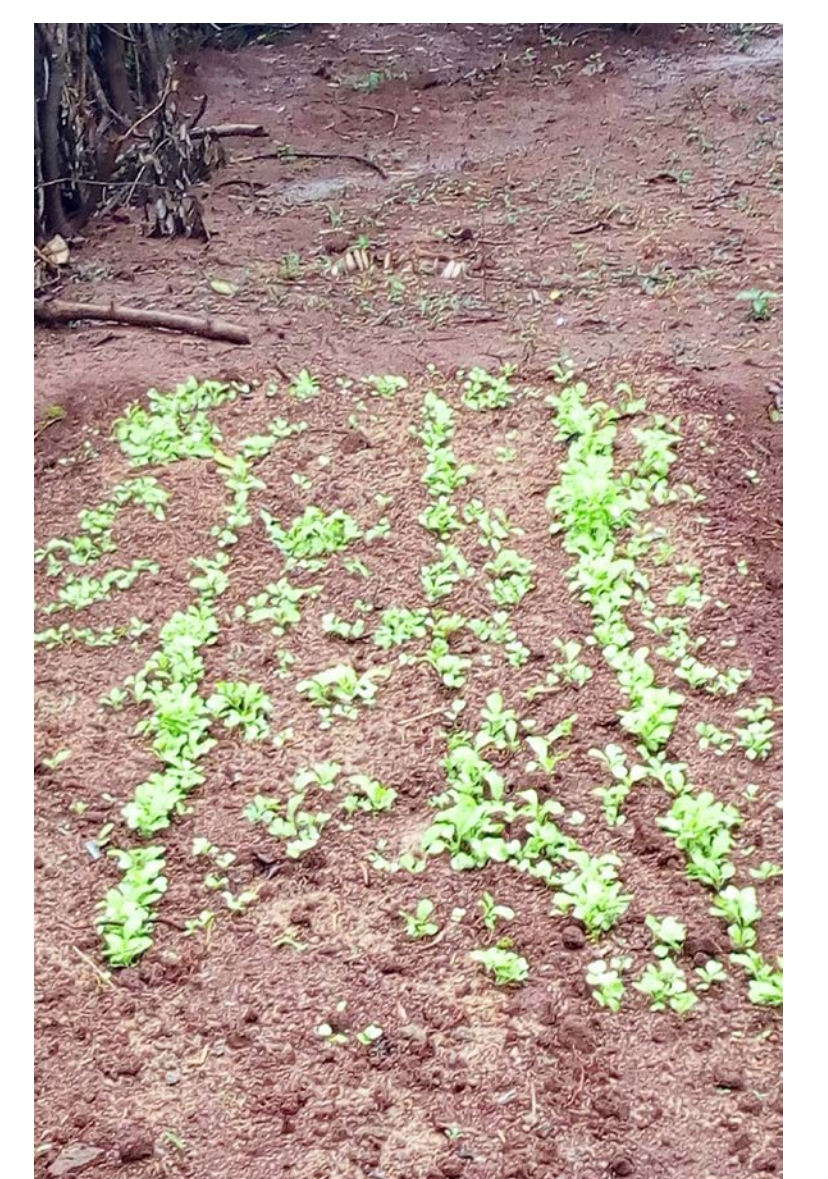
Other conditions such as weeding, application of manure and watering were applied to both plots.

DATE	ACTIVITY
17 th May 2018	Preparation of the plots including the application of organic manure
21 st May 2018	Sowing of both Chinese and Marigold seeds



Results:

It was observed that, plots which the Chinese cabbage grown together with the marigold seedlings were not easy attacked by the pests. On the other hand, the Chinese cabbage that were grown without marigold seedlings were easily attacked by the pests. The following graphics confirms the results.



Conclusion:

From the observed results, it is proven that marigold flowers can be used as the biological control of pests in the garden to protect the vegetables against pests. The literature shows that the pungent smell from these flowers repels the insect pests. Marigold reduces nematode population and repels some pests common in capsicums and a range of vegetables. This enables the vegetables to grow well free from the pests, with quality and increased yields. Not only those, but also the vegetables are healthy worth due to the fact that the pesticides from industries are not used at all. Marigold as a bio-pesticide is preferred because it is easily bio-degradable and thus, has less effect on the environment compared to non-organic chemicals that pollute the environment. It is one of the safest ways to farm organically.

However, it is not well known what causes the pungent smell to repeal the insects. For that matter, this can be a room for further research.

References:

<https://www.nation.co.ke/business/seedsforgold/Marigold-is-all-I-use-to-stop-pests-and-diseases/2301238-2947546-2148yi/index.html>. Retrieved on Sunday June 24th 2018 at 19:12 p.m.

<https://www.google.co.tz/search?q=marigold+natural+pesticide&sa=X&ved=oahUKEwizvqvd1uzbAhWKCMAKHaz3RAoQQ1QIijAEoAA&biw=1366&bih=599>. Retrieved on Sunday June 24th 2018 at 19:31 p.m.

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