SYSTEMS THINKIN APPROACH IN FARM MANAGEMENT

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Abstract: *Due to the growing trend of industrialization and the development of their pollution, recently there has been increasing attention to preventive approaches. To protect the environment, we need clear and comprehensive policies while there have been no the long-term policy and systematic approach in this sector. Based on the study of dynamic components related to each other, the behavior is perceived environmental systems. System approach pays attention to feedback to the origin and circumstances that cause stability or lack of stability of the system.*

This paper is the application of systems thinking to implement pest management field with regard to principle of Systems thinking in order to pave the ground for more researchers, decision-makers, experts and other persons engaged in agriculture, in order to achieve sustainable development.

***KEYWORDS**: SYSTEMS THINKING, MANAGEMENT AND PESTICIDE*

1) Introduction

There are many cases of managers and officials trying to solve a problem that is only in relief and after a short time, the situation is as before or lead to bigger problems. System approach, is a systematic way to deal with the complexities of today's world. When the system fragmenting, loses its most important characteristics. Thus, the system is a total that can not be understood by analysis

2) The need for systems thinking in management

We know life as a series of incidents and events for each event, we also provide a clear preference. Focus on events, deprive us of finding a long-term pattern that lies behind the events. Used to focus on particular events and trigger events, allow a human being to be incapable of understanding the gradual changes. Frog story that is incapable of understanding the gradual increase in water and this causes the loss becomes known. This, just like the fact that there is in human society. Sometimes the sudden death of a person to be regarded as grounds its appearance remains hidden from the eyes. In contrast, the slow death of thousands of people due to economic problems and health and social sensitivity does not arouse.

3) The application of systems thinking in the fight against pests

Each year, the vermin to attack plantations and destroy crops. The traditional response to this, the immediate spraying fields (we have assumed that the toxic does not lead to damage to nature, the environment, water and other goods). Spraying is done and observed that the insects died. It seems that the situation is fully-controlled and appropriate, but after a short time it is observed that the insects returned. The interesting thing is that some insects appear more than once before. Immediately, spraying command is issued again on a broader scale and the problem appears to be solved quickly. This is repeated over and over again and it seems that spraying is only a temporary solution. And later more groups of insects rush to the fields.In your opinion, what has been happening in this cycle?

In fact, the traditional method to fix the problem, the system is divided into small sections and the problem is only considered in the same section or sections .but in the long run, the implementation of this process to solve the inconvenience, could in no way satisfactory. Figure 1 is demonstrated of Traditional approach. Therefore, the system analysis was then performed with a system approach (Figure 2). Matching Fig.2, the concentration of greater consumption, the number of insects 'A' that Exterminator product decreases (loop 1). On the other hand, the number of insects 'A' is reduced, the number of insects "B" increases (loop 2, symbols + sign is a direct relationship between the two variables). This is due to the previously mentioned, insect 'A' of the insect "B" feeds. With the increase in insect type "B", the number of insects "B" destructive product also increases and this leads to an increase in the total destructive insects. The total increase in destructive insects, pesticide also looking to increase its number of insects and finally the "A" decreases and this loop is repeated on a regular basis. And because the loop is stronger, exactly the opposite of what they had expected, happened

Fig1: Cause-effect relationship pest management in the traditional way

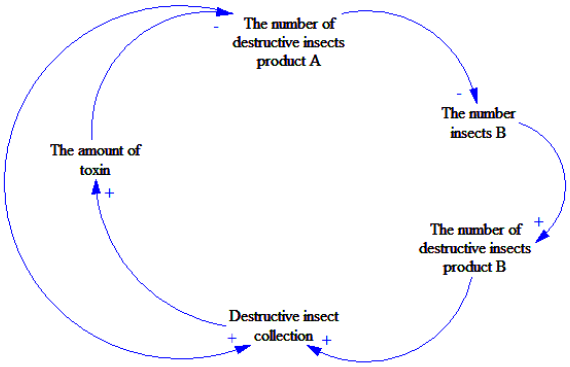

Fig2: Cause-effect relationship pest management in thinking approach

4) Conclusion

System approach, proactive attitude by looking at alternative treatments that would be certainly better returns. But this method is still as it should be, between managers in the country, it is unwelcome. And perhaps one of the reasons is the lack of a comprehensive form.

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