

Herbicide and its Role of in Agriculture

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SUMMARY

Herbicides need understanding the importance of weed management that has been a necessary a part of agriculture for a protracted time. After you grow crops, you would possibly additionally realize some unwanted plants referred to as weeds growing aboard. The presence of those unwanted plants will negatively impact the expansion and yield of your required crops, since they consume constant resources like water, nutrients, daylight and harbour insects and fungi. In agriculture, herbicides area unit helpful as a result of they'll management weeds in virtually any stage of growth, providing flexibility to the crop growers. Each crop is compact by completely different types of weeds, and therefore the herbicides that require to be used are going to be completely different.

INTRODUCTION

Herbicides area unit employed in agricultural and wild land ecosystems to scale back the density of weeds and promote the expansion of fascinating species. Use of herbicides in agro ecosystems might modification composition of weed populations. In wildlands, herbicides might increase the variety of native species. Threats to plant variety caused by home ground loss and invasive species area unit way larger than threats by use of herbicides. Herbicides area unit primarily employed in agriculture however the utilization of herbicides additionally extends to different industries wherever needless plants need to be cleared. Some herbicides are often applied before the seeds area unit planted to confirm that there's no trace of herbicides beforehand. In some cases wherever weeds would possibly already be gift aboard growing crops, a selective chemical can be used that may management the weeds while not damaging the crops. The utilization of herbicides can still stay necessary as they'll considerably impact the yield and stop harmful weeds from growing and being processed aboard crops.

Different Types of Herbicides

Herbicides are often classified in varied ways that. This may embody classification supported the chemicals in herbicides, technique of application, web site of action, or temporal order of application. a number of these classifications of kinds of herbicides area unit listed below:

Selective Herbicides - Selective herbicides will stop the expansion of some specific species of plants while not having an impression on crops. These area unit the categories of herbicides that area unit most typically employed in agriculture as they'll be used while not poignant crops.

Non-Selective Herbicides - These herbicides area unit broad-spectrum and can have an effect on any plant it's applied to. Non-selective herbicides area unit largely employed in pre and post-sowing burn down, chemical follows, plantations and additionally for industrial applications that need clearing a large space of land of all plants.

Translocated herbicides- move to the positioning of action via the transport mechanisms inside the plant; the vascular tissue and bast. The vascular tissue transports water and nutrients from the soil to growth sites and therefore the bast transports product of chemical process (for instance, sugars) to growth and storage sites. it should take up to 2 weeks for symptoms to develop on the target weeds betting on chemical rate, conditions and species. Herbicides supported technique of Application

Soil Applied Herbicides - These herbicides area unit applied to the soil and absorbed by the roots or the shoots of the rising seed plant of the weed. For these herbicides to realize their correct potency, they need to be applied to the correct layer of the soil and adequate soil wet.

Foliar Applied Herbicides - Foliar herbicides area unit applied to the foliar elements of the weeds higher than the soil then absorbed by the exposed tissues of the weeds..

Pre-emergence Herbicides - this kind refers to the herbicides that may be applied before the weed seedlings emerge from the soil. Once applied, these herbicides management the weeds as they grow out of the soil however {they do|they area unit doing} not have an effect on the weeds that are already mature.

Post-emergence Herbicides -These herbicides area unit applied when weeds area unit already mature. They be selective or non-selective betting on the requirements and might have soil or foliar application. They usually need

multiple applications for effective management and area unit avoided to be used throughout rains as they'll be washed off that reduces their effectiveness.

Herbicide mixtures and successive applications involve the applying of quite one chemical, typically to extend the spectrum of weed species controlled however additionally for resistance management. a mix involves the applying of multiple product in a very single application. Wherever herbicides area unit antagonistic and can't be mixed along in a very single tank, they're applied consecutive.

Advantages of Herbicides

Herbicides go with several blessings over different strategies of weed management as a result of their area unit numerous alternative ways that they'll be used. Here are a unit some blessings that highlight the importance of herbicides:

- Herbicides are often applied before the weeds grow
- Unlike different strategies of weed management, it's attainable to use herbicides within the pre-plant and pre-emergence stages. This lets the crops grow in a very weed-free setting while not competitory for nutrients even within the early stages of development.
- Herbicides are often effectively employed in completely different crop arrangements
- While mechanical styles of weed management are often effective in some cases, once it involves broadcast planted and narrow-spaced crops, reach all the weeds gift within the field that herbicides can simply do. Herbicides can even effectively reach intra-row weeds.
- Herbicides will get obviate established weeds
- Weeds that have roots deep into the soil cannot forever be effectively removed with mechanical strategies as whereas the highest half is also removed, the weeds will grow back from the roots. For these, a mixture of mechanical and chemical herbicides can be necessary for effective weed management.
- Herbicides stop weeds from growing for a protracted time
- When herbicides area unit applied, they have an inclination to be effective for long periods of your time and stop the weeds from growing back before long.
- Herbicides will get obviate structurally similar weeds
- Weeds that seem just like the crops are often ignored after they area unit removed through mechanical strategies because it is difficult to differentiate between the two. However, herbicides are often applied to kill these weeds which will look constant however be biologically completely different while not inflicting any harm to the crops.

CONCLUSION

Herbicides are used in forest management to prepare logged areas for replanting. The total applied volume and area covered is greater but the frequency of application is much less than for farming (Shepard et al. 2004). In many parts of the world, herbicides are being increasingly used to replace tillage in order to improve environmental conditions. In comparison to tillage, herbicide use reduces erosion, reduces fuel use, reduces greenhouse gas emissions, reduces nutrient runoff and conserves water.

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