



Koneru Lakshmaiah Education Foundation

(Category -1, Deemed to be University estd. u/s. 3 of the UGC Act, 1956)

Accredited by **NAAC** as 'A++' ♦ Approved by **AICTE** ♦ **ISO 21001:2018 Certified**

Campus: Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.

Phone No. +91 8645 - 350 200; www.klef.ac.in; www.klef.edu.in; www.kluniversity.in

Admin Off: 29-36-38, Museum Road, Governorpet, Vijayawada - 520 002. Ph: +91 - 866 - 3500122, 2576129

KL COLLEGE OF AGRICULTURE

MycoMarvels MUSHROOM CULTIVATION CLUB

Name of the Event: Agrochemicals and Their Role in Seed Treatment

Date: 06-08-2024

Venue: Gundimeda field

Number of students participated: 30 members

Objective of the event :

- **Disease Prevention:** Protect seeds from soil-borne and seed-borne pathogens, reducing the risk of infections during germination.
- **Pest Control:** Shield seeds from insects, nematodes, and other pests that may attack during early growth stages.
- **Improved Germination:** Enhance seed germination rates and seedling vigour by providing better conditions for growth.
- **Nutrient Supply:** Some treatments provide essential nutrients or growth promoters that boost the seed's potential for early development.

Description:

Activity of seed priming of Bajra using different chemicals like fungicide and insecticide has been performed on 06/08/2024 in Gundimeda field.

Some methods of seed treatment include:

- ❖ **Fungicides**-Fungicides are used to prevent the growth of fungi and their spores.
- ❖ **Insecticides**-Insecticides are used to prevent the seed from the insects and killing the insects.

1. Metalaxyl fungicide:- (Metalaxyl 35%WS)

- Metalaxyl is a systemic fungicide that is used to control a variety of plant diseases caused by Oomycete fungi.
- Metalaxyl is a systemic, ensures double protection from inside and from outside. It is a multisite protective fungicide and inhibits spore germination and remains on the leaf surface and interferes with six different biochemical processes within the fungal pathogen cell.

It can control various pathogens such as:

- Controlling of downy mildew.
- Controlling of soil-borne pathogens.

Dosage: (3 gm/kg seed)

3 gm of Metalaxyl is used per one kg of bajra for bajra seed treatment.

2. Imidacloprid insecticide:- (Imidacloprid 17.8% SL)

- Imidacloprid is a neonicotinoid insecticide that works by disrupting the nervous system of insects.
- Imidacloprid is used to control sucking insects, some chewing insects including termites, soil insects, and fleas on pets.

Dosage: (2ml/kg seed)

2 ml of Imidacloprid is used per one kg of bajra for bajra seed treatment.

Method of Application:

Among different seed treatment methods like wet seed treatment, dry seed treatment, slurry treatment etc., Students performed the dry seed treatment using Metalaxyl fungicide.

- Metalaxyl @ 2grams is weighed and mixed thoroughly in 1 kg of bajra seed.
- Imidacloprid @ 2ml per kg seed is added after the fungicide treatment and mixed thoroughly.

Safety Precautions:

Gloves and long sleeve clothing are used as safety measure to avoid the direct chemical contact as a safety measures.

Outcome:

Seed treatment refers to the application of fungicide, insecticide, or a combination of both, to seeds so as to disinfect and disinfect them from seed-borne or soil-borne pathogenic organisms and storage insects. It also refers to the subjecting of seeds to solar energy exposure, immersion in conditioned water, etc.

Benefits of Seed Treatment:

- 1) Prevents spread of plant diseases
- 2) Protects seed from seed rot and seedling blight
- 3) Improves germination
- 4) Provides protection from storage insects
- 5) Controls soil insects.
- 6) Controlling of downy mildew.

PHOTOS OF THE ACTIVITY



