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# Importance & Recent Development in Seed Coating in Fodder Seeds

by

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## What is Seed Coating ?

**It is the application of very thin usually colored, biodegradable and water soluble layer of coating material (like - Polymer) around the seeds.**

### Why we should do it ?

- ☺ **To reduced dustiness**
- ☺ **To improve flow ability**
- ☺ **Carrier for actives & additives**
- ☺ **To improve seed appearance**
- ☺ **Increases protection level of seeds**



**Coated seeds of different crops**



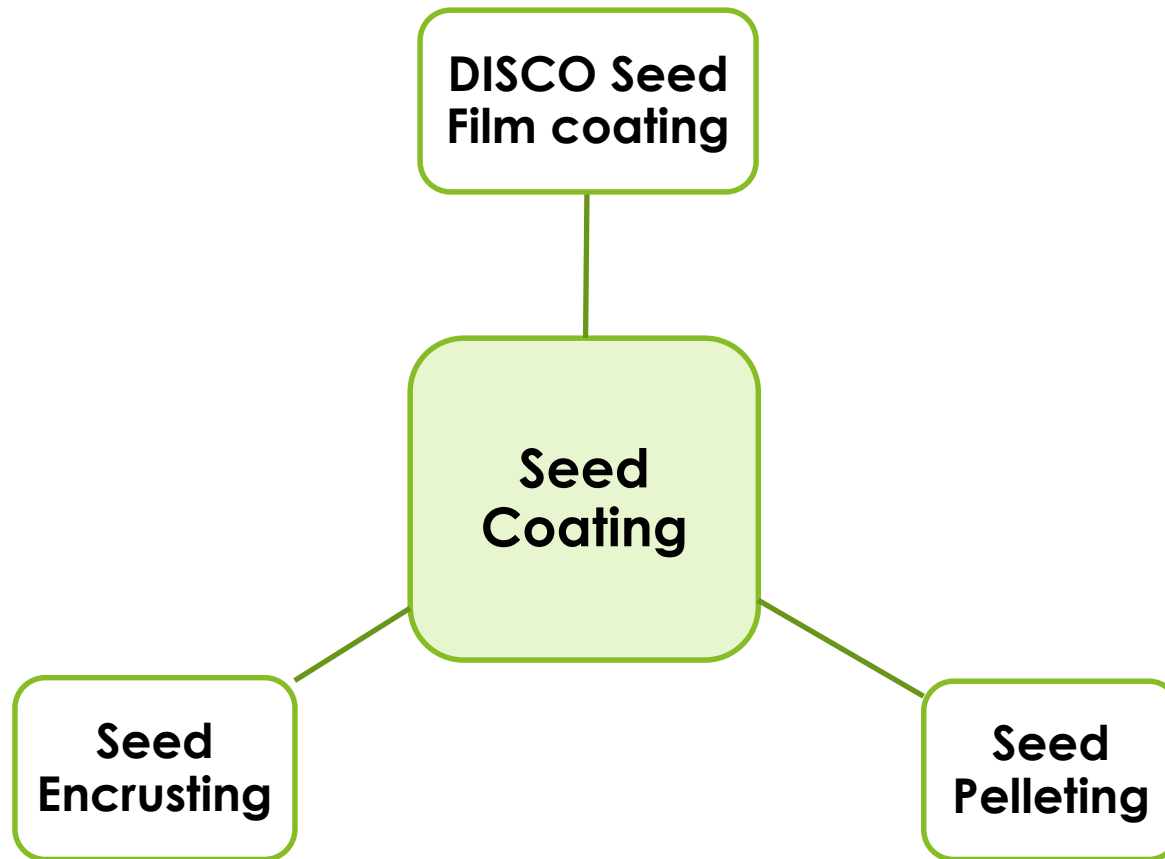


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## Types Seed Coating





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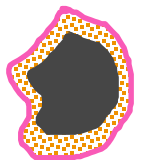
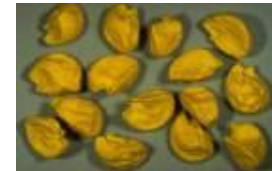
# Product forms of Seed Coating



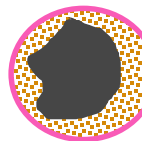
**Basis coat,  
Weight increase 0.2-2%**



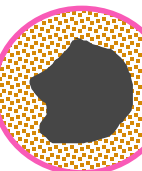
**Complete film coat,  
Weight increase 3-20%**



**Encrusting  
Weight increase 1-5X**



**Mini pill,  
Weight increase 10-25X**



**Standard pill,  
Weight increase 15-100X**





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## Seed Coating Equipment



**For Commercial Use**



**For Laboratory Use**





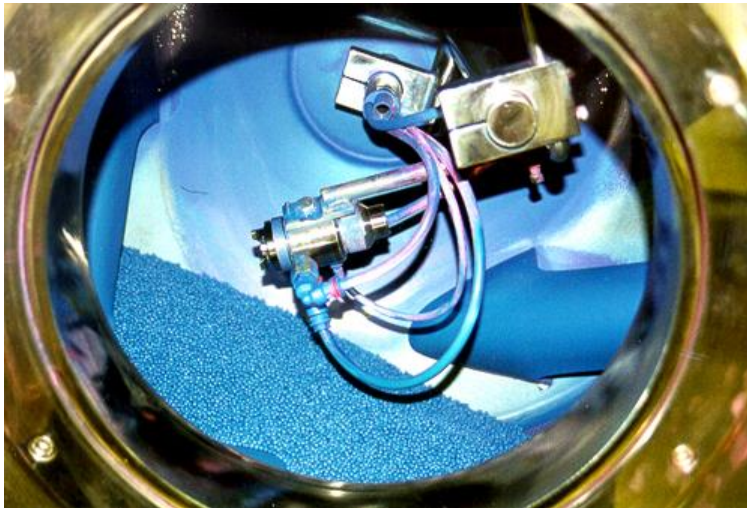
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## Cost of Film Coating/Encrusting/Pelleting

- 🕒 **Cost of Film Coating : Rs. 2 to 10/Kg of raw seed**
- 🕒 **Cost of Encrusting and Pelleting : Rs. 500 to 3500/Kg of raw seed**







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## Advantages of Film Coating

- 🕒 **Carrier of actives/additives (e.g. PPPs) to seed**
- 🕒 **Improve seed to seed distribution**
- 🕒 **Optimize release**
- 🕒 **Dust control**



**Control**

**Film Coated**



**DISCO Film Coated Seeds**







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## Advantages of Encrusting & Pelleting

- 🕒 **Creates Seed space**
- 🕒 **Increases seeds weight**
- 🕒 **Facilitates direct mechanical sowing even in very small seeded crops**
- 🕒 **Reduces seed rate**
- 🕒 **Precise loading of agrochemicals**
- 🕒 **Provides protection to the seeds**



**Raw & Encrusted Seeds**



**Pelleted Seeds**





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## Problems with most of grasses seed

- 🕒 **Small in size**
- 🕒 **Light in weight**
- 🕒 **Mechanical seed sowing very difficult**

## Solution

- 🕒 **By seed pelleting we can increase seed size & weight which would be helpful in mechanical seed sowing also.**





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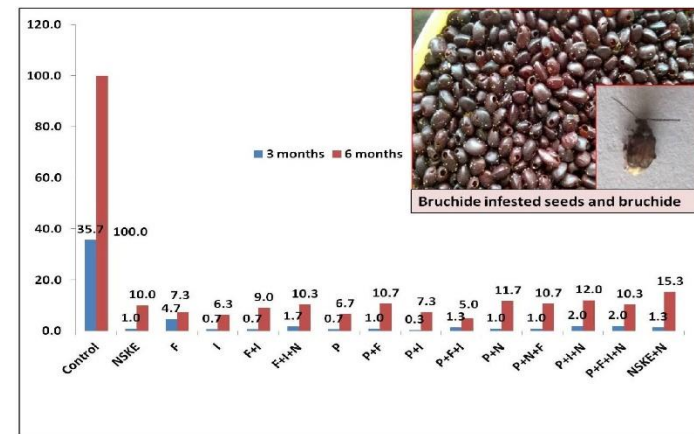
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## Problems with seeds of fodder legumes

### 🕒 Insect attack during storage

## Solution

- 🕒 **Seed coating with different insecticide would be helpful to minimize insect pest attack in storage.**



**Effect of different coating treatments on percent seed infested by bruchide.**  
**Source : Maity et al. 2015**



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## Problems with seeds of fodder cereals

### 🕒 Insect attack during storage



**Uncoated Sorghum  
Seed**



**Coated Sorghum  
Seed**



**Uncoated Maize  
Seed**



**Coated Maize  
Seed**



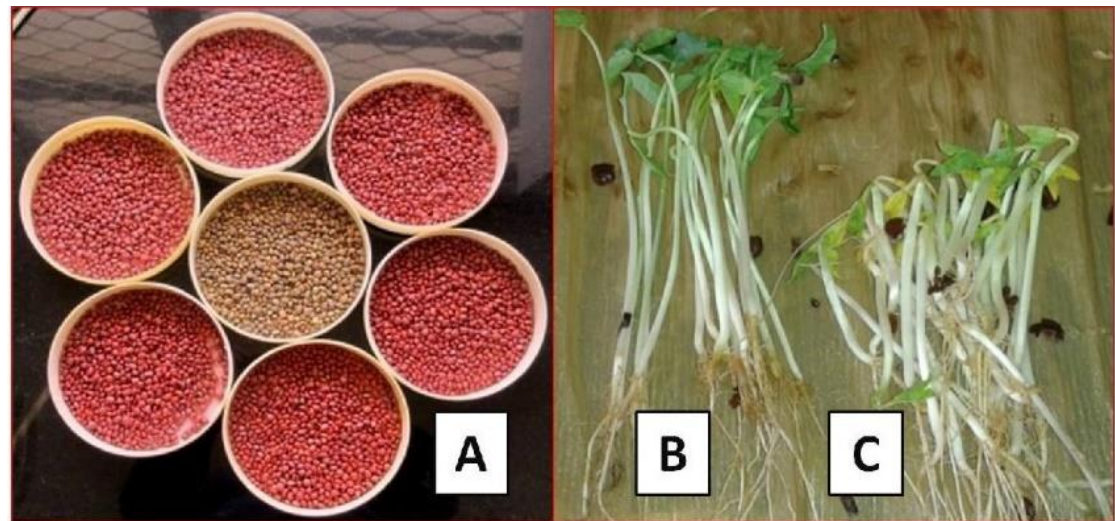


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## Effect of seed coating on seedling length of cowpea



**Coated seed of cowpea (uncoated seed in centre) (A),  
Seedling of coated (B) and uncoated (C) seed at end of  
germination test**

***Source : Maity et al. 2015***





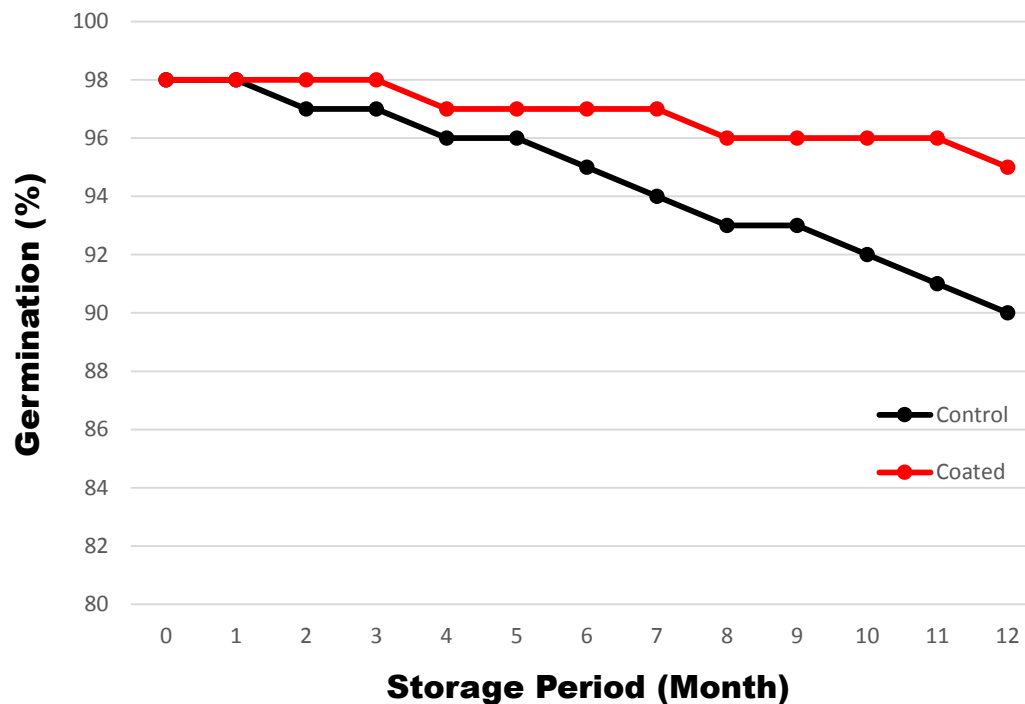


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# Effect of seed coating on germination of maize during storage







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**Thank You**