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Seed transport - Maintaining viability during transport and transit

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Stressful transport conditions

Storage conditions under transport are crucial because seeds cannot be stored under optimal conditions. Prescribed safe storage conditions of species categories (dry for orthodox, moist for recalcitrant seed) should be attempted. If seeds are collected with high moisture content and humidity does not allow proper drying, fruits and seeds should be packed loosely to permit ventilation and thus prevent fungal attack. Smaller quantities of fruits and seed may be stored in cooling boxes (not directly on ice)

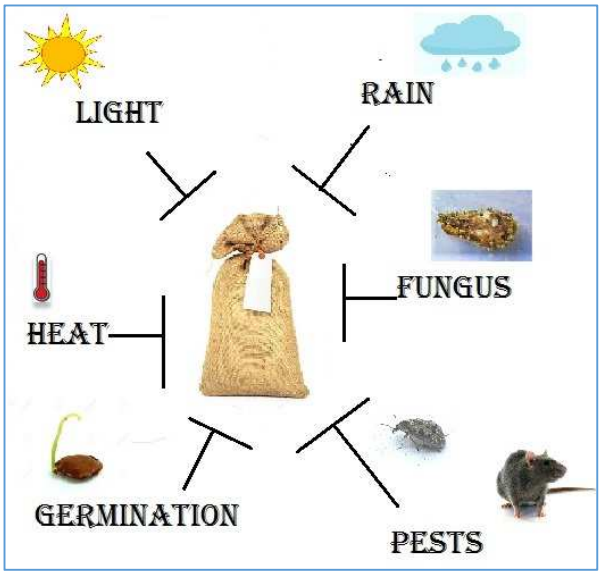

Figure 1. conditions to avoid during transport and transit.

Keep labels with the seed

Labels with information on species, collection site, number of seed trees and quantity should be kept with the seed at all times. A label should always be kept inside the seed bag or containers and another attached to the outside. It is advisable to assign a field seed lot number, that can be linked to information in a note book in case labels are lost or turn unreadable

Figure 2. A label with key information is put inside the bag and another tied with a string to the outside.

Fruit transport

Fruits are usually collected close to the extraction site, but they are nevertheless transported from the field to the extraction site. Fruits are more at risk of decomposing, especially fleshy fruits, and fruit bags must be able to keep the fruits safe. Avoid fruits being stored for long time before extraction.

Figure 3. The temperature under a tarpaulin on a pick-up or a car boot can get very high if parked directly under a tropical sun.

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Mailing seed

Seed sent from producer or dealer to seed users may be transported by ordinary postal services or transport companies, not necessarily aware of the contents. Sometimes packages may stay in transit for some times if sent over long distances. Seed packages should be robust enough to withstand mechanical handling damage and preferably put in plastic bags to avoid them absorbing moisture and releasing odour that could possibly attract insects or rodents.

Desiccation sensitive seed impose a particular problem because the seeds must be kept moist. They should be shipped in closed containers with adequate moisture to avoid desiccation

Summary, do's and don'ts

Do:

- Keep seeds in containers that protect them from mechanical damage.
- Protect from rain.
- Be careful to maintain labels with seed lots, - they are easily lost during handling.
- Transport and transit should be as short time as possible.

Don'ts:

- Don't park vehicles with seed under direct sun.
- Don't leave seeds for long periods unattended.
- Make sure that rats and insects do not eat seeds or perforate containers
- Don't keep fruit unnecessarily long time before processing

Selected readings

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Note: This Development Brief was prepared for PATSPO project, Ethiopia as an extension note for farmers