

Seed Coat Quality is of utmost importance for both Seed and Food Grade Export. Our growers and overseas buyers expect only the highest quality. Recently, there has been a distinct shift in export buyer focus to seed coat quality. Seed coat quality is also paramount to ensuring highest quality seed for our brand. We need your help - as an IP and/or Seed grower - to practice effective harvesting and transferring activities that minimize damage to the seed before it reaches our facility.

What is Seed Coat Damage?

- Seed coat damage is the cracking or rupturing of the outer covering of the soybean seed.
- The internal structure of soybeans makes them very susceptible to mechanical damage.
- Impact is the most common cause of damage. It is related to speed of the movement of equipment or seed.
- **Impact from the threshing mechanism in a combine** is perhaps the **most serious** cause of seed coat damage.
- Significant damage can also occur in augers and when beans drop and hit a hard surface
 - ie. Long steep down-spouting and long drops to the bin floor.

Why is it a problem?

- In *Food-Grade* soybeans, cracks in the seed coat cause the soybeans to oxidize faster which changes the flavour of the end product. It also changes the required soak time, so it is difficult for the food-plant to get a consistent product to work with.
- In *Seed* soybeans, seed coat damage reduces germination and seedling vigour and can lead to microbial and insect infestation.

Tips to Minimize Seed Coat Damage

Advice from Expert Growers

- **BURNDOWN:**
 - Do a pre-harvest burndown to ensure green stem will not be an issue and to kill weeds. Weed patches and green stems mean that you have to be more aggressive with the combine which results in more seed coat damage.
- **EQUIPMENT:**
 - Ensure transferring equipment is in good condition, running at full capacity and working properly.
 - Use conveyor belts instead of augers as much as possible.
 - If you have to use an auger, make sure to run it full.
- **MOISTURE:**
 - The ideal harvesting moisture for soybeans is 12% to 14%. If you are able to harvest within these levels, seed coat damage should be minimal.
- **COMBINE SETUP:**
 - Spend time setting up the combine properly – refer to your Operator’s Manual.
 - Check samples regularly throughout the day.
 - If you notice more than 4 split seeds in a handful of harvested soybeans you are likely causing seed coat damage.
- **CHANGES DURING THE DAY:**
 - Be aware that you may need to make adjustments to your combine settings during the day (open concave and/or slow down the rotor/cylinder speed).



At Sevita, it is our mission to collaborate with farmers to grower to finest soybean varieties and supply our customers’ global growing demand for high quality Food Grade soybean products. It is paramount to Sevita and our producers that our product continues to support this mission. We encourage you to make every reasonable effort to minimize damage to the soybean seed coat this harvest.