

DISADVANTAGES OF USING SEED CUT FROM LARGE MOTHER TUBERS

(Jacques Lavoie, P. Ag., Seed Potato Specialist, NBDAAF, Wicklow, email: jacques.lavoie@qnb.ca)
(Janet McLaughlin, Potato Research Technician, NBDAAF, Wicklow, email: janet.mclaughlin@qnb.ca)

Many factors associated with the use of large seed tubers (>10 oz [> 283.5 g]) can individually and collectively have a negative effect on productivity.

These factors include:

1. Increased labour cost for re-cutting the larger seed pieces
2. Significant deterioration in seed performance
 - Keep the seed piece profile of the larger tubers below 50%
3. Increased susceptibility to bruising
 - Larger seed profiles (7-10 oz [198.4 – 283.5 g]) produce more cut surfaces, edges, and corners which allows for more seed piece decay to set in
 - Multiple cut surfaces per seed piece leaves less energy for plant development as increased tissue energy is required for healing
4. Increased chipping/slivers as seed tuber size increases
 - Suggests an increased number of blind seed pieces which will reduce plant stands
 - “Larger seed pieces” are required to minimize this problem translating into more seed planted per acre and proportionately higher seed costs!
5. Increased seed piece treatment to cover the larger surfaces
6. Reduced planter accuracy and efficiency
 - Difficult to maintain proper planter bowl depth
 - Cut seed can bridge in the bowl of the planter
 - Increases variability in seed spacing
 - Larger seed results in a wide range of seed piece sizes and shapes causing them to tumble erratically when released in the furrow
 - Inconsistent stem numbers per hill
 - Uneven competition between neighbouring plants for water, nutrients, and sunlight during the growing season
 - Disparity in tuber set between plants
7. Delayed emergence and reduced yield due to seed piece orientation
 - Some seed pieces will land skin side down

8. Increased stem-row width at emergence
 - Increases the risk of cultivation damage

Remember ...

Seed cut from large tubers produce **low yield, inferior quality** and **less profit for commercial growers!**



Key Statement...

“Growing potatoes is costly and challenging enough without adding the difficulties associated with using large seed tubers”