

Storage microclimate influences quality changes in stored onions

Md. Nahidul Islam¹, Aimei Wang¹, Jakob Skov Pedersen², Merete Edelenbos¹

¹Aarhus University, Department of Food Science, Kirstinebjergvej 10, DK-5792 Aarslev, ²AgroTech Taastrup, Højbakkegård Allé 21, DK-2630 Taastrup

NahidulIslam@food.au.dk
Tlf: 87 15 83 92



Introduction

The optimal conditions for onion storage are 0 °C and 65%-75% relative humidity (RH). However, it is challenging to maintain low relative humidity in storage room at low temperature. On the other hand, normal cooling at cold storage consumes lots of energy. Therefore, it is interesting to see whether pulse cooling can be an alternative method while maintaining the quality of onions.

Objectives

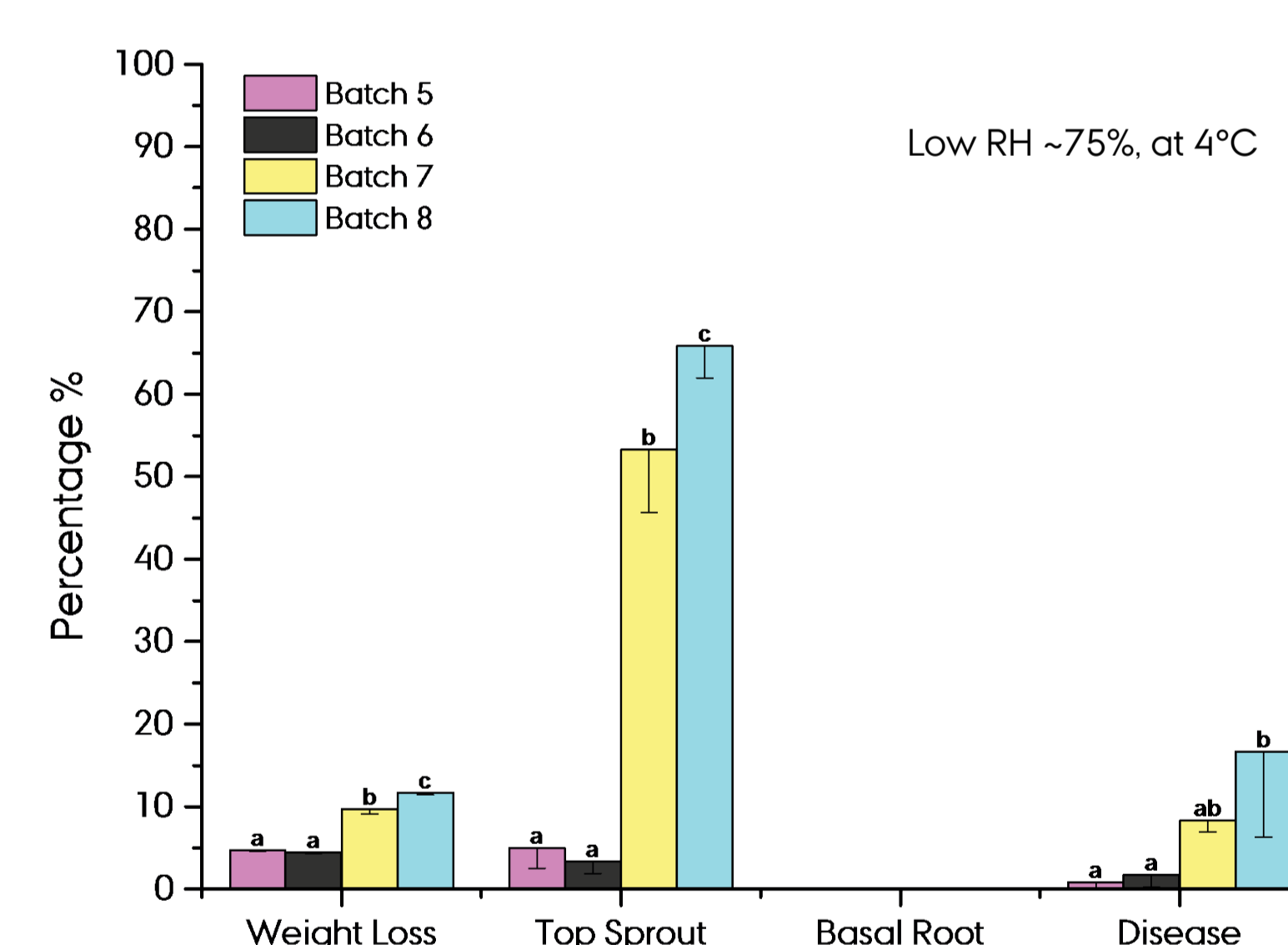
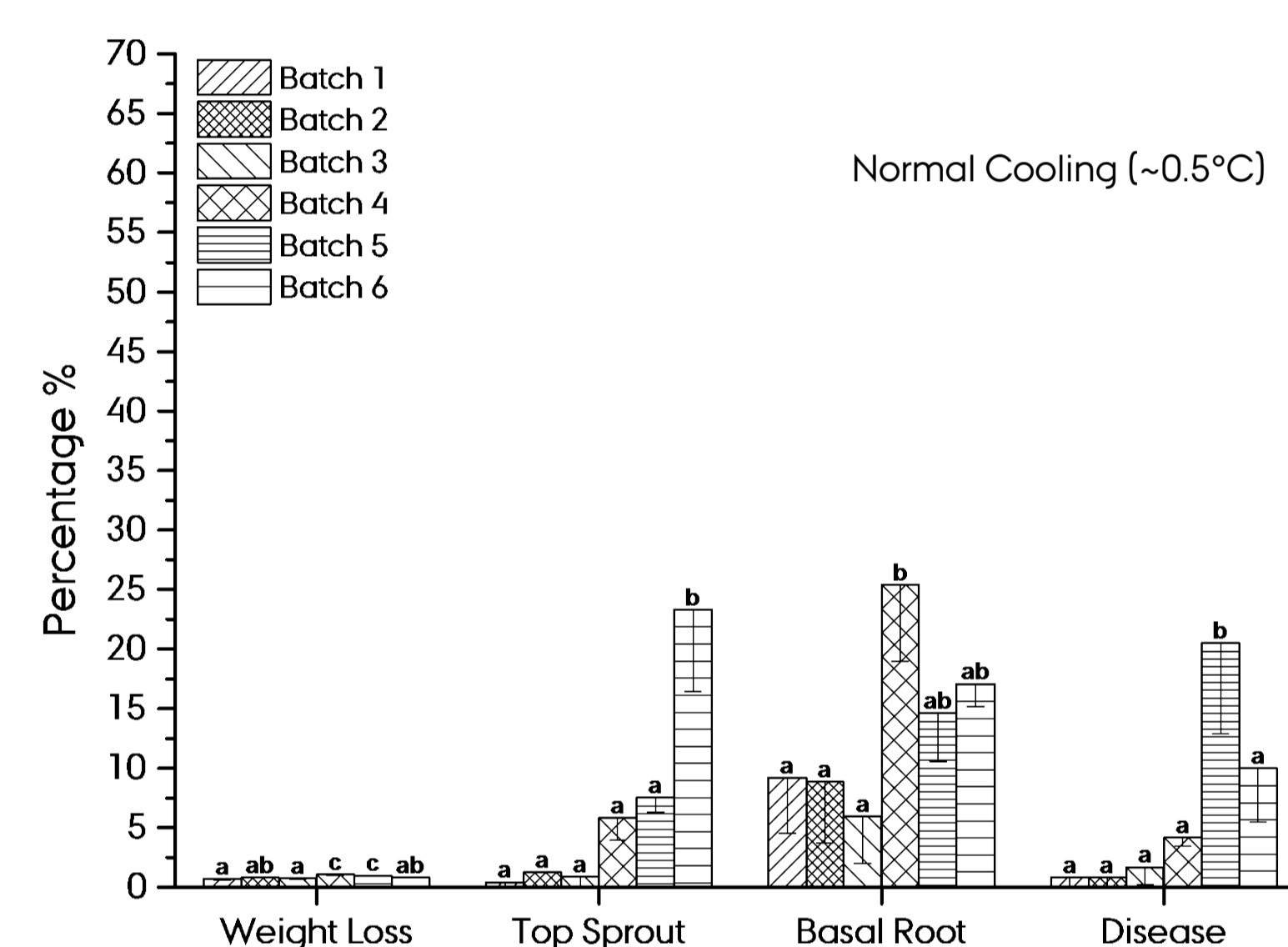
To investigate effects of storage systems on quality of onions



Summary

1. Higher incidence of basal root sprouting at pulse cooling and at high RH
2. Higher incidence of diseases at high RH

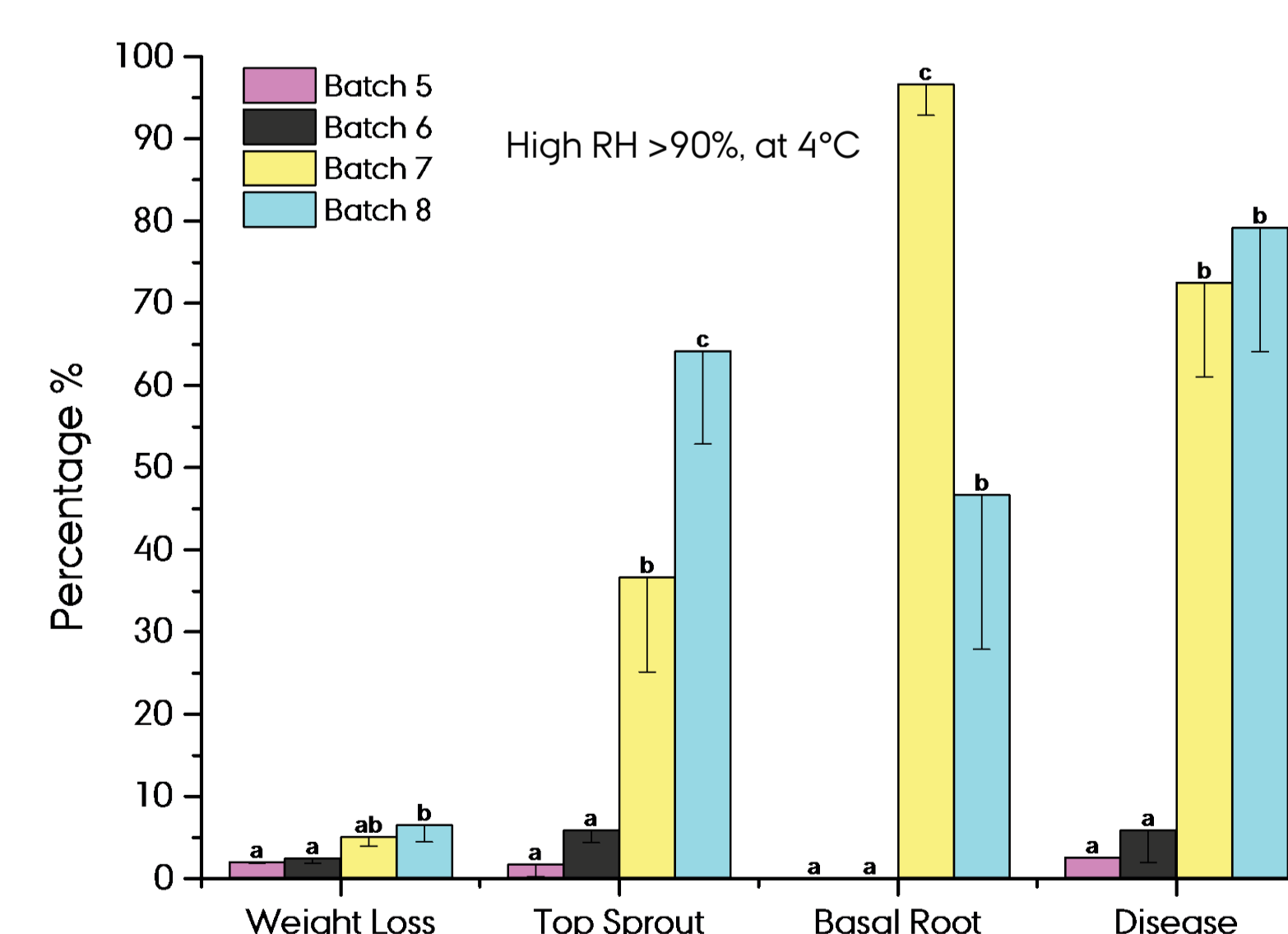
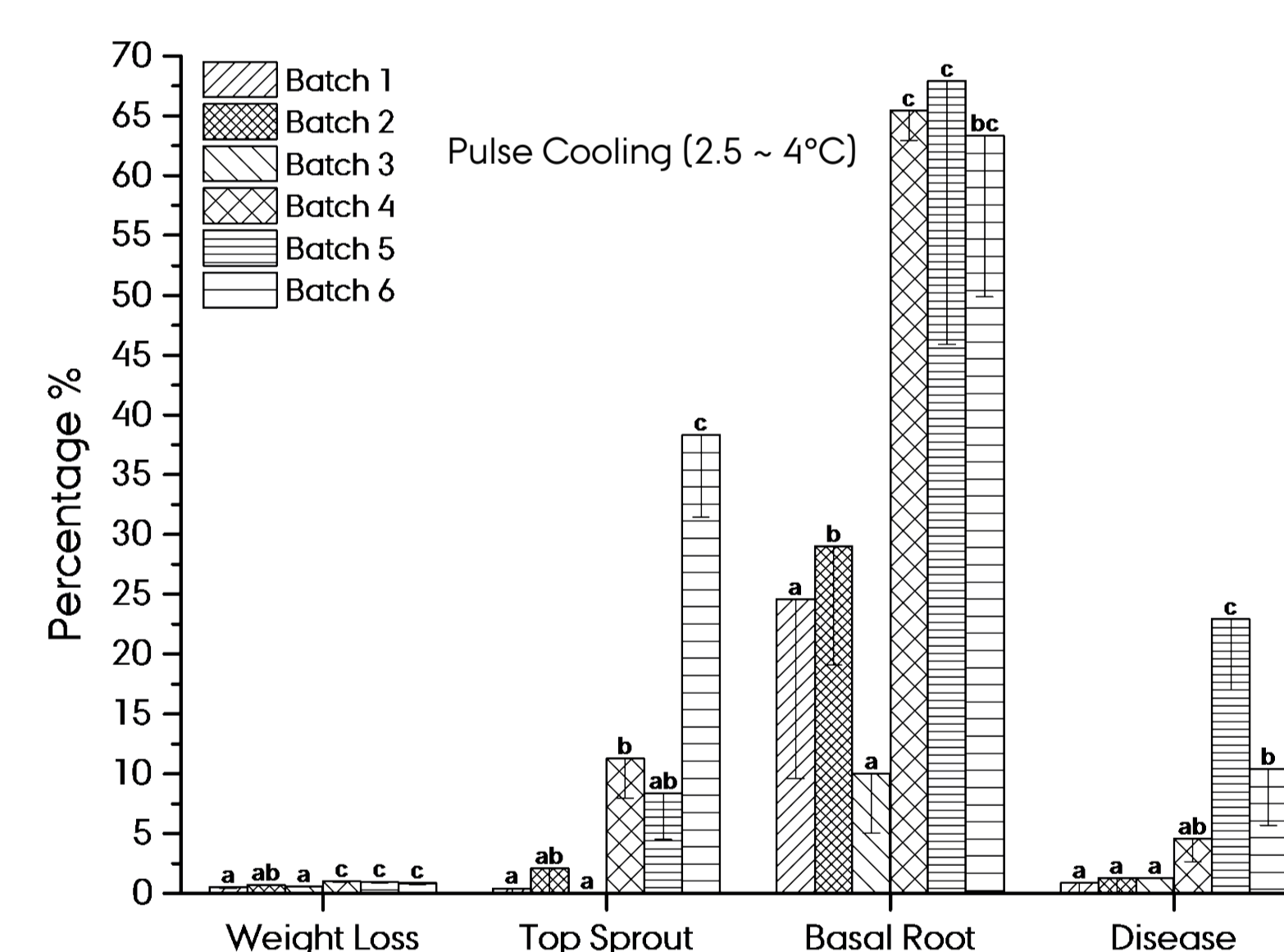
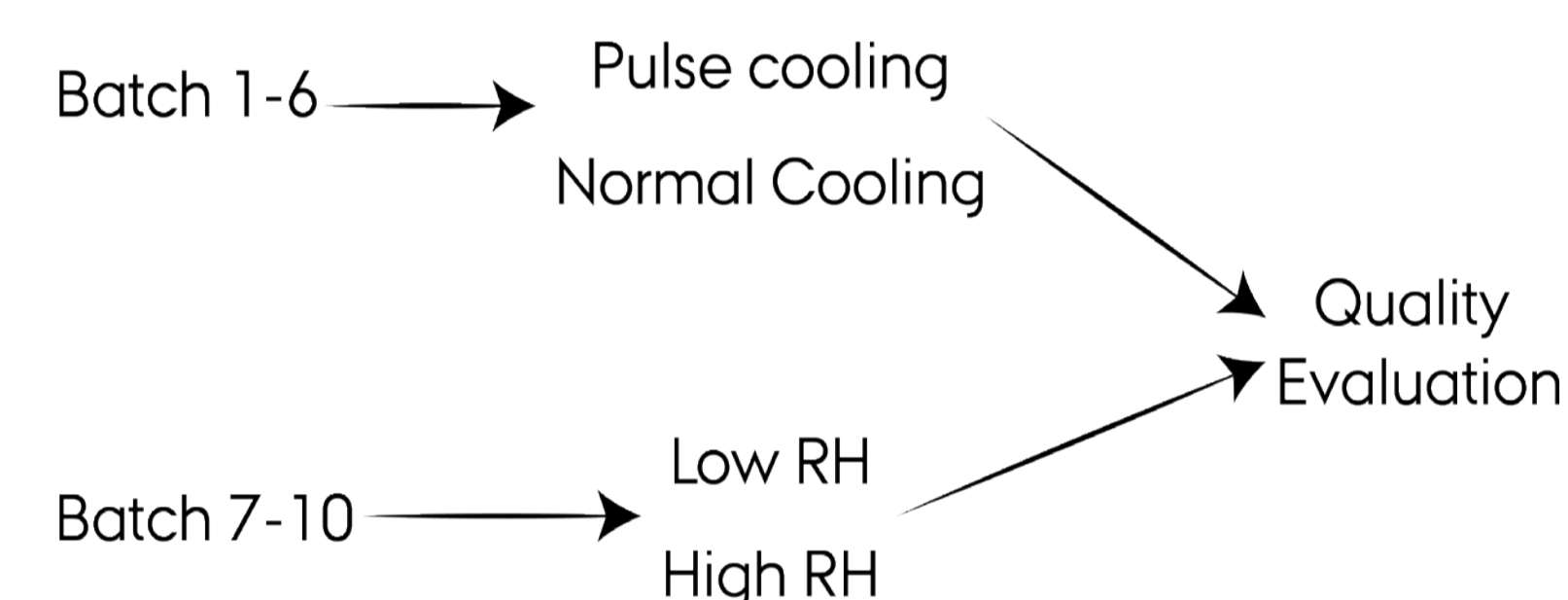
Results



“Monitoring of storage microclimate can be used as an indicator for quality changes of onions”



Materials and methods



The project: “Strategies and technologies to reduce post-harvest losses of potatoes and vegetables”

