

## CRIMSON CLOVER (*Trifolium incarnatum* L.) SEED QUALITY UPGRADING IN A CONTINUOUS FLOWING BLOWER

*Source: Chapter 3 of the dissertation:*

### USE OF CONTINUOUS FLOWING BLOWER WITH VERTICAL AIR STREAM IN BARLEY, WHEAT AND CRIMSON CLOVER SEEDS

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**ABSTRACT** – The seed quality upgrading process separates seeds into different categories having similar properties and it is usually done using seed density and size. The terminal velocity is an important aerodynamic property, and can also be used in this process. Thus the aim of this study was to evaluate a continuous flowing blower to improve physiological quality of certified crimson clover (*T. incarnatum*) seeds. After being the moisture content determined, four seed lots were subjected to the *Continuous Seed Blower*, a continuous flowing blower in a laboratory scale set at air velocity of 8 ms<sup>-1</sup> to 13 m.s<sup>-1</sup> in intervals of 1 m.s<sup>-1</sup>. After processing the samples they were subjected to further evaluations of the thousand seed weight, germination, seedling emergence under greenhouse conditions, speed of emergence and dry weight of seedlings at seven and 15 days after sowing. It was concluded that: 1- it is possible to upgrade clover seed quality using a continuous flowing blower with vertical air flow and 2- the air velocity of 10 ms<sup>-1</sup> is the appropriate air speed for improving the physiological quality of clover seed lots with seed discharge of 3,7% to each 1% increasing in seed germination.

Key words: terminal velocity, seed quality upgrading, thousand seed weight