

From the [list of publications of Anders Borgen](#)

Borgen, A. 2005: Brush cleaning to remove fungal spores from seed lots. Abstract Booklets. ISTA, 5th SHC Seed Health Symposium, Angers France 10th -13th May 2005 p.21

Common bunt is infecting wheat seedling just after sowing, in the heterotrophic phase before seedling emergence. The seed *per se* is healthy at the time of sowing, but gets infected from spores resting on the seed surface.

Bechel *et al.* 1998 has shown that only a minor fraction of the spores of the the closely related bunt species *T.contraversa* in a seed lot end up in the flour, while the majority are removed during the cleaning of the seed before or during milling. However, little is known about the destiny of the spores during the cleaning process of seed intended for sowing.

Seed lots contaminated with bunt spores during threshing was cleaned in a brush cleaner ($\phi=400\text{mm}$) (<http://www.westrup.com/HAsideeng.htm>) with and without precleaning. Airstream through the cleaner was modified during the project to improve efficacy.

It is demonstrated that a brush cleaner can be used to remove spores of common bunt from wheat seed lots. A combined cleaning of a conventional pre-cleaning and a brush cleaning removed 99.8% of the spores in a seed lot. Hence the efficacy of this treatment to prevent seed borne transmission is comparable with the best chemical treatments known.

The result indicate that when a the number of bunt spores in a seed lot is assessed, and evaluated in relation to a certain threshold, it should considered if the seed health analysis is made before or after seed cleaning.

References:

Borgen, A. 2005: Removal of bunt spores from wheat seed lots by brush cleaning. ICARDA Seed Info. no. 29, July 2005