

Impact of Pollen Viability Analysis in the Seed Industry



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Introduction

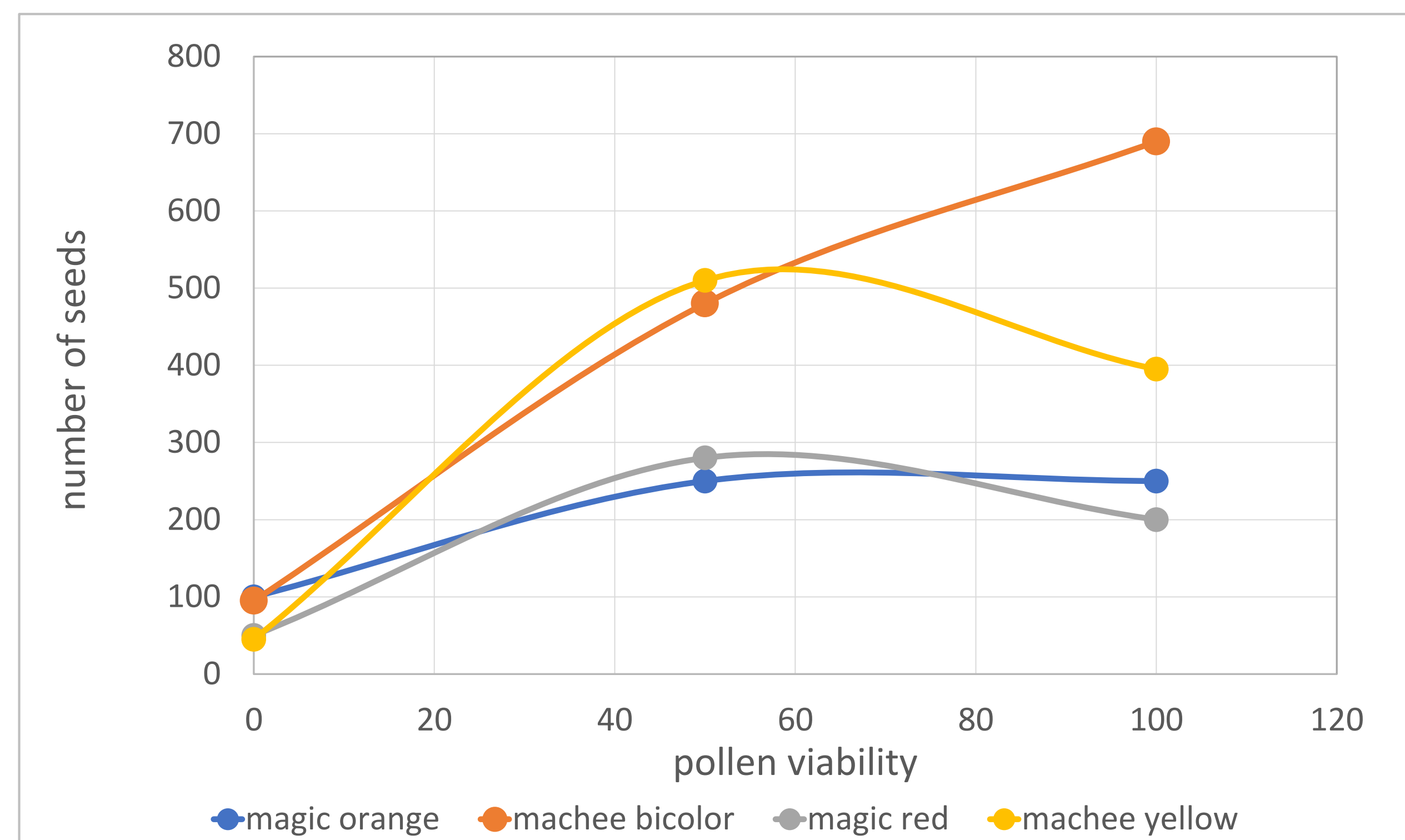
Accurate and efficient measuring of pollen viability has long been avoided due to tedious procedures such as microscopy.

Now, accurate viability measurements of 100's of samples a day - measured directly in the field - is made possible with Impedance Flow Cytometry on the Ampha Z32.

What's the impact of knowing pollen viability for seed breeding and production?

- Reduce cost for line selection
- Increase seed and crop yields
- Improve breeding efficiency by up to 30%

Increase Seed and Crop Yields



Research at Syngenta shows that seed yields in different flower species are highly dependent on choosing the optimal pollen viability for each species.

Avoid seed yield loss by measuring pollen viability and selecting highly viable pollen for pollination.



Reduce Cost for Line Selection

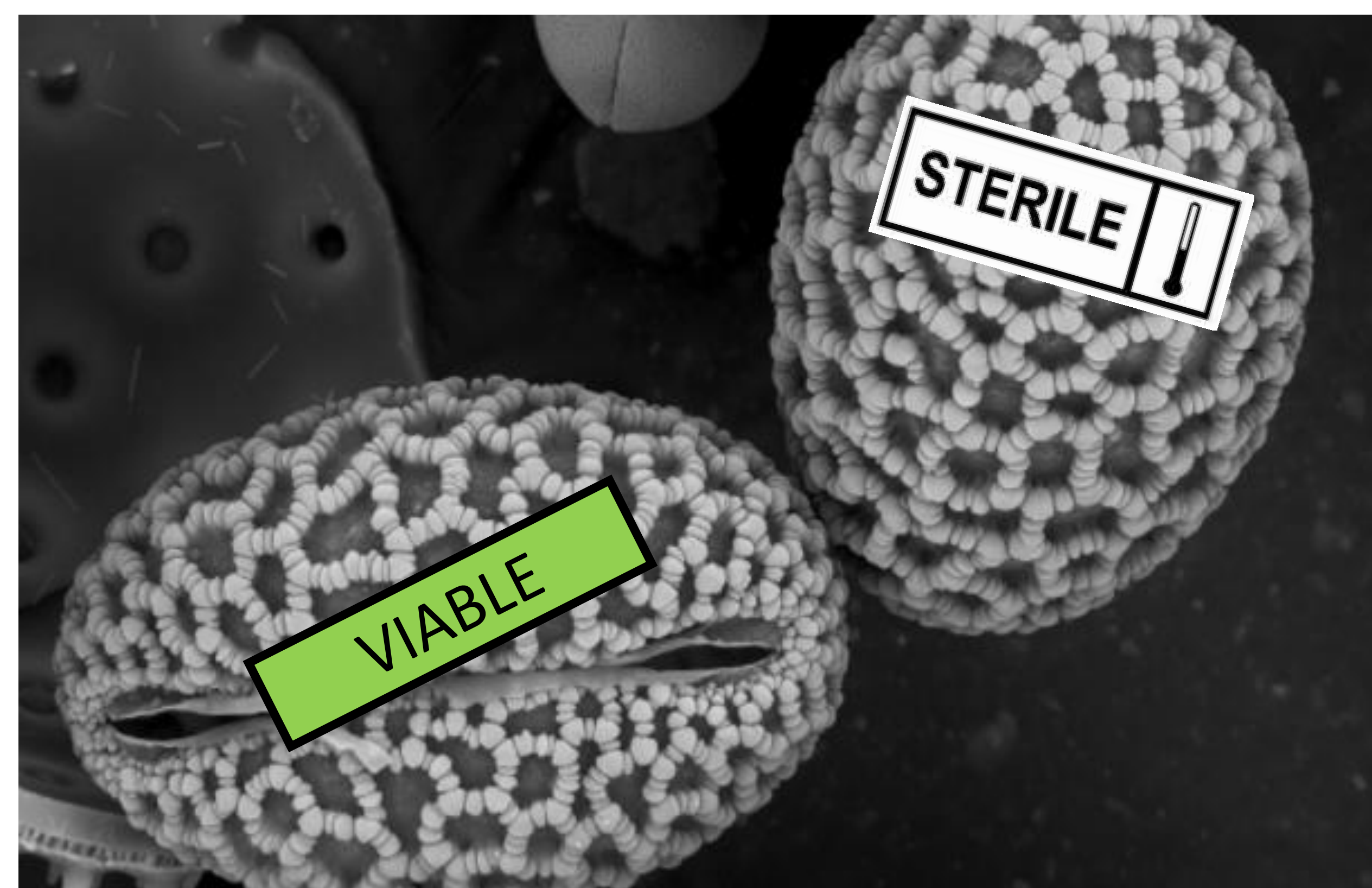


At Bayer CropScience in Gatersleben Germany the introduction of the Ampha Z32 provided a statistically relevant database for wheat line selection by measuring viability of thousands of pollen.

Dr. Schmolke summarizes: **“Over 100 samples could be processed this way in less than four hours in the field. The use of the Ampha Z32 in the field also guaranteed immediate measurement after collection, free of aging effect on the wheat.”**



Improve Breeding Efficiency



Pollen viability is an essential factor for the selection of lines for breeding. Traditional pollen analysis with staining methods are time consuming laboratory work.

Joep Lambalk, R&D Director at Enza Zaden: **“By use of the Ampha Z30 in disease assays and plant crosses, we could improve the efficiency of these processes by 30%”**

ENZA ZADEN

