

Arrested Ear Development (Again!)

R.L. (Bob) Nielsen
Agronomy Department
Purdue Univ., West Lafayette, IN
Email: rnielsen@purdue.edu

Reports of arrested ear development in corn seem to return every year like the [swallows of Capistrano](#). Arrested ear development goes by several other names: blunt ear syndrome (BES), beer can ears, and hand grenade ears to name a few. When growers discover the problem in their fields, they sometimes use other names that I cannot repeat in this article.

I won't go into details about the symptoms of BES, other than kernel row number is usually normal for the hybrid, but kernels per row and overall cob length are abruptly truncated. The abrupt arrest of ear development suggests a single stress event as the causal agent. I wrote a more extensive treatise on the subject last year (Nielsen, 2003) that included some references on possible causes of the problem.

In the past week, I discovered classical BES symptoms in a commercial hybrid and an apparent severe expression of the oddity in a seed production field, both in southern Michigan. I have also received reports of arrested ears in commercial hybrids from Ohio and Pennsylvania. If you come across this oddity yourself, please contact me with any details you can provide about the affected field (see below).

Desired Information About BES-Affected Fields:

- State & county of affected field.
- Planting date of affected field.
- Seed company (e.g., Bob's Pretty Good Hybrids)
- Hybrid number (e.g., BN2821)
- Approximate percent of field affected.
- Approximate percent of ears affected within affected area.
- Average length (inches) of affected cobs.
- Average number of kernels per row on affected ears.
- Average number of kernel rows on affected ears.
- Daily high/low temperatures from planting to July 1.

- Daily rainfall amounts from planting to July 1.
- Soil pH levels of affected field.
- Other soil test information from affected field.
- Landscape position of affected area (high, low, sloping).
- General location of affected area within field (throughout, field edges, etc.).
- Relative soil drainage of affected area (good, bad, intermediate).
- Herbicides applied this year (product, rates, application times)
- Insecticides applied this year (including seed treatments)

Related References

Nielsen, R.L. (Bob). 2003. **Blunt Ear Syndrome in Corn.** Corny News Network, Purdue Univ. Available online at <http://www.kingcorn.org/news/articles.03/BeerCanEars-0812.html> (URL verified 9/6/04).

Don't forget, this and other timely information about corn can be viewed at the Chat 'n Chew Café on the Web at <http://www.kingcorn.org/cafe>. For other information about corn, take a look at the Corn Growers' Guidebook on the Web at <http://www.kingcorn.org>.

© 2004, Purdue University