

Report No. 67
Chahlis, Washington

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Pinelandia & Bayville Labs.

Crop Formation: Chahlis, Washington 1995

Laboratory Code: KS-03-35

Material: Oat stems and heads, *Avena sativa*

Formation: Ovoid formation (approximately 18 x 20 ft.) at Chahlis, Washington, formed late July or early August, 1995.

Sampled: by Ilyes and Mary Ellen Frister on Aug. 20, 1995

Note: The farmer designated this formation as "wind damage".

SUMMARY OF RESEARCH FINDINGS:

a)- a total of four sample sets were collected from downed and four from upright controls.

b)- there were no apparent differences between the individual sample sets within the formation or within the sets from the controls.

c)- there were however significant differences between the formation samples and the controls.

d)- because of the minimal degree of sampling the node length (Nl) data were summarized as a statistical population and are summarized below for both the apical and penultimate node regions.

<u>Samples</u>	<u>A-apical</u>		<u>P-penultimate</u>		<u>Expulsion</u>	<u>N-plants</u>
	<u>ave.</u>	<u>s.d.</u>	<u>ave.</u>	<u>s.d.</u>	<u>Cavities</u>	
<u>Controls</u>	1.62	0.30	1.81	0.27	0%	30
<u>Formation</u>	3.72	0.64	2.53	0.40	18.2%	22

COMMENTS

1)- the A-node length expansion of +130% and the P-node of +40% are statistically significant at the $P < 0.05$ level.

2)- the lower degree of node expansion at the P-node region is as previously explained, due to the more mature, tougher tissue at the P-node level.

3)- the pronounced node expansion and the high level of expulsion cavities clearly take this formation out of the category of "wind damage".

4)- the level of tissue damage approaches that found in the record "Blue Ball" formation (report No. 51).

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