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December 1, 1995 Pinelandia & Bayville Labs.

Crop Formation: Multnamah, Oregon, 1995

Laboratory Code: KS-03-30

<u>Material:</u> Wheat stems and heads, (Triticum aestivum)

Formation: Appeared near Multnomah, Oregon (date not known)

<u>Sampled:</u> found by Ray Crowe and granddaughter on July 27, 1995 and samples by Carol Pederson, 20075 SW Imperial St., Aloha, Oregon, on July 28, 1995.

Laboratory Results:

Due to the uncooperative nature of the farmer, only two samplings were taken as shown in the Fig.1 diagram prepared by Ms. Pederson. The node lengths were recorded at both the apical (A) and penultimate (P) locations on the plants, and the statistical data are summarized below. The frequency of expulsion cavities and splits-bubbles are also included.

	N1 mm	Expulsion	Splits-
<u>Apical A-node</u>	<u>ave. s.d. N. Change</u>	Cavities	<u>Bubbles</u>
Control-A	2.60 0.65 9	0%	0%
Formation-A	4.97* 0.53 20 +91%	10%	80%
Pen. P~node			
Control-P	2.83 0.41 9	0%	0%
Formation-P	3.50* 0.54 19 +24%	37%	16%

^{*-}P<0.05

Comments:

As our data and information accumulates it is interesting to note that there are emerging patterns of node changes which are related to the size and nature of the crop formation. As will be clearly evident in results to be presented in later reports, the smaller formations in general contain the most pronounced node alterations and heat induced transformations. This is entirely in line with the above data. Here we find significant node expansion as well as a high percentage of expulsion cavities and splits, alterations which are unique with crop formations and do not occur in downed plants caused by wind damage.

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Designating these small irregular formations as "depressions" is misleading and should not be used. There is no reason at this point to designate these less geometrically defined formations as some sort of "hybrid" creation. The reason these smaller forms are irregular, is that they contain a higher degree of local convective turbulence which in turn breaks up the more uniform, smooth vortex action and prevents the formation of the large scale, delicate geometric forms. More information on this will be forthcoming.

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