## Crop Formation at West Union, Oregon, July 1994

Laboratory Code: KS-02-54

Plant material: Wheat plants with seed heads, Triticum aestivum.

<u>Formation:</u> Approximate 50 ft. circle with attendant, sharply outlined paths formed around July 6, 1994. See attached diagrams prepared by Ms. Carol Pedersen, for details.

<u>Sampled by:</u> Carol Pedersen, 20075 S.W. Imperial St., Aloha, Oregon 97006, on July 20, 1994.

Additional Information: Excellent sampling with detailed reporting by Ms. Pederson. Her description of the formation is very typical of those received from serious investigators in the U.K. For example, this is a quote from her report – "There was an even flow counterclockwise, except for several areas where the crop reversed direction, went into a fan or spray shape or otherwise deviated from original flow by going under or over other stalks. The pattern was unusual near the swirl center (N. of diagonal bars) as the crop ended up in a mounded form crossing each other from east to west twice over a base flow that went under it north." Carol also made note of the expulsion cavities, split nodes etc.

## Laboratory Results:

The results of a detailed stem node analysis are listed in the following table. In lieu of listing the data from each sample, the sets were organized in relation to their location relative to the formation (see diagram) and the mean values compared.

Stem Node Analyses

	Node L	.ength			
<u>Sample Group</u>	ave.	sd	N	NI-change	<b>Expulsion Cavities</b>
Controls- A,B,C,D	3.66	0.39	13		0%
Epicenter- E	5.29*	1.00	8	+44.5%	63%
"Key area"-F,H,I,J	5.60*	0.46	21	+53.0%	<b>52%</b>
Standing RectG	4.43*	0.34	4	+21.0%	O <b>%</b>

<sup>\*-</sup> P<0.05

Seed weight comparisons disclosed no apparent differences between the ten sample groups. It is interesting to note that all ten sample sets disclosed 100% germination at the 7-day growth stage. The seedling height data are listed as follows.

## Seedling Growth Analyses:

	Seedl	ing htcm	
<u>Sample</u>	ave.	sd N	<u> Growth Change</u>
A-cont.	6.49	2.39 20	
B-cont.	6.66	2.90 20	
C-cont.	7.79	2.01 20	
D-cont.	6.57	2.53 20	
E-Epi.Cent.	6.44	2.74 20	-6.4%
F-"key"	4.64	1.35 20	<i>-</i> 32.6 <b>%</b> *
G-standing	5.01	2.33 20	<b>-27.2%</b> *
H-path by keys	6.27	3.08 20	<b>-8</b> .9 <b>%</b>
I-"key"	4.57	2.40 20	<b>-33.6%</b> *
J-"key"	6.18	3.23 20	-10.2%

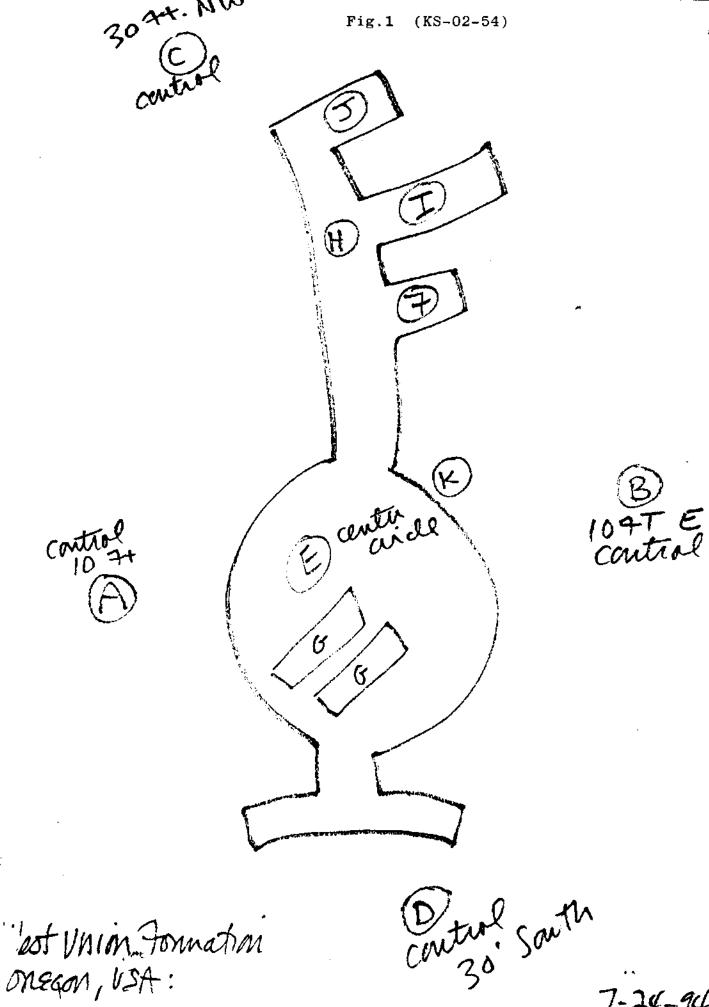
<sup>\*-</sup>P<0.05

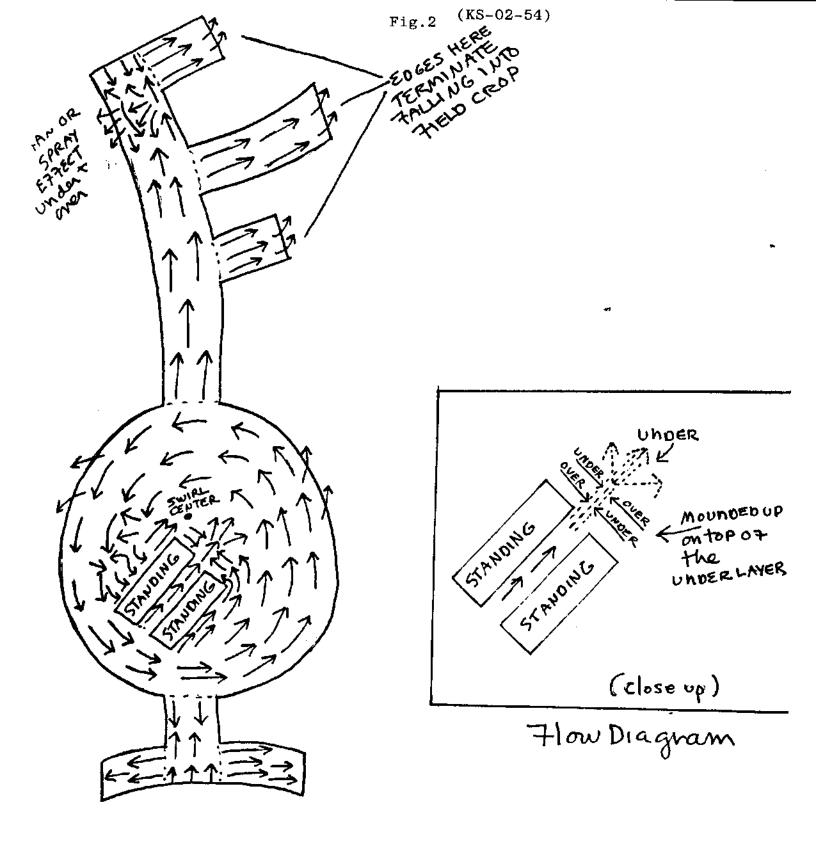
## Comments:

There are obviously major alterations in the cell structure and germination characteristics of the formation plants. In comparing the two tables of data we find that as the node expansion becomes more pronounced the growth of the seeds are more suppressed. This same type of pattern has been observed in many of the crop formations, the most recently reported being the 1993 samples from Devises, UK, and discussed in detail in Report No. 24 (Sept. 28, 1994).

A very significant aspect of the formation alterations in this report, is the fact that the sample set-G plants disclosed statistically significant increases in node length expansion and suppressed seedling growth, even though they were taken from the rectangles of <u>normal appearing</u>, standing plants within the formation. For some reason we never are told by the self proclaimed "hoaxers" how they accomplish these incredible internal, physiological alterations without leaving any clues on the external plant surface.

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