

### **Crop Formation: Butte, Nebraska USA**

Laboratory Code: KS-03-117

Material: barley plants with seed heads, *Hordeum vulgare*

Date Formed: Night of July 21-22, 1996

Date Found: July 22, 1996

Date sampled: July 23, 1996, by Sheriff, Duane Pavel, Butte Nebraska. As indicated on Sheriff Pavel's sampling diagram (Fig. 1 attached), eleven sets of plant samples ("A") and nine soil samples ("B") were submitted. Two plant samples were from an ancillary oval formation.

Supplemental sampling: August 9, 1996, by Harry A. Jordan, Butte, Nebraska; consisting of 5 plant sets (seed heads only) and 7 soil samples, all from the ringed circle (sampling diagram in Fig. 3 attached). Mr. Jordan reported that the farmer and his son both pointed out that the barley heads from the downed plants in the ringed area were missing many if not all of the apical beards. Also included in this sampling was what Mr. Jordan described as "junk" from the ancillary oval formation.

Formation: Circle with outer ring - approx. 40 ft. diameter overall -- plus a non-geometric, more or less oval area of downed crop (approximately 25 ft. in diameter) located 175 ft. southeast of the ringed circle. On Sheriff Pavel's sampling diagram (Fig. 1) he makes the comment regarding the non-geometrically downed area, "smashed down crops, looks like attempted swirl of grain".

With regard to this same oval area Mr. Jordan makes the comment "The black dirt was not present there, but sandy loamy soil within which several antique artifacts, shards from pottery, old bottles and pieces of farm machinery metal had been pulled up to the surface."

#### SUMMARY OF RESEARCH FINDINGS:

- a) in the Pavel sampling a total of 9 formation and 2 control sets were examined.
- b) each set contained approximately 15 plants.
- c) the apical node length data were recorded and examined statistically.
- d) the node length (N1) value in each of the sample sets was compared with the mean from 28 control plants.
- e) these node length changes are entered on the bar chart in Fig. 2, as percent change in node length relative to the mean node length for the control samples.

f) a statistical analysis showed that the stem nodes in the samples from the ringed circle area were not significantly altered.

g) in the ancillary oval formation (samples 1C and 2C) the node length expansions are highly significant at the  $P < 0.01$  or 99% level of confidence.

h) germination trials were conducted on both the Pavel and Jordan samples and in every case the data from the ringed formation were not significantly different than the growth data obtained from the controls.

i) all of the soil samples were given a magnet "survey drag" and with one important exception no magnetic material was found.

j) soil within the bag containing the "junk" material from the ancillary formation contained a large amount of magnetic material. Most of the magnetic particles consisted of black beads of what appeared to be magnetite. Some of these beaded particles were attached to what was obviously fragments of iron based machinery and stranded wire. It was very unusual to find that there was only traces of the very common, rust form of hematite iron oxide ( $Fe_2O_3$ ); with the predominant form being the highly magnetic  $Fe_3O_4$  or hematite.

k) the beaded form of the magnetite suggests the presence of a high transient heating under reducing conditions.

l) the missing beards on the heads from the downed plants were apparently broken off by the vortex energy. At the late stages of maturity these beards are very brittle and easily knocked off the seed head.

#### COMMENTS:

When comparing the results obtained within the ringed circles (samples 1A to 7A) with those from the ancillary oval formation (1C and 2C) one gets the impression that they may have been independently formed from different energy sources. Although this may indeed be the case, there is an alternative explanation which would provide a hypothetical framework more in accord with what we have discovered in other formations. First we will summarize what we now know from these two independent sampling sets.

1) the energy within the ringed formation was not sufficient to significantly expand the nodes in the mature plant stems.

2) within the 25 ft. ancillary oval formation the stem nodes were expanded to a very significant degree (73% and 172% relative to the controls).

3) there was no significant effect on seed growth from plants within the formations.

4) the only magnetic material found in the soil samples was from the irregular oval formation.

5) the magnetic material appeared to be fragments which were heated to the melting point under reducing conditions.

These rather puzzling findings of seemingly independent alterations within two areas of downed crops in the same field, are not that unusual when compared with our data base obtained from a seven year study of crop formations. First with regard to the large difference in node lengths within the two formations. We have consistently observed that there are very sharp lines of demarcation in the energy effects within all formations. Just within a few feet or even a few inches we may find a change from very pronounced energy effects and plant cell alterations to no change whatsoever. Here we have an excellent example of this. If we statistically compare the node expansion data in sample 1C with those from 2C we find that 2C has a significantly higher node expansion than 1C, even though the plants were taken only 10 ft. apart. In other words this sharp transition or energy gradient is typical of what one finds in these self organized plasma systems..

From previous studies we have evidence that the microwave energies within crop formations are sufficient to heat iron particles to the melting point (reference: W.C. Levensgood and John A. Burke, **Semi-Molten Meteoric Iron Associated with a Crop Formation**, J. Scientific Exploration, 9, pp.191-199, 1995). In the smaller ancillary oval formation we see evidence of a high degree of heating, turbulence and instability -- much more turbulent energies than those involved in the ringed circle formation. The presence of the reduced form of iron oxide in the ancillary oval is very unusual and studies are continuing in an attempt to resolve the origin of the deposit. If further information is obtained it will be made available. Considering all the data there is a reasonable probability that both formations were produced by the same energy dissipative system.

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Barley was cut  
 40 Feet Barley Standing North  
 Direction From Outer Ring

- A - SAMPLES ARE BARLEY PLANT
- B - SOIL SAMPLES
- C - SAMPLES - PLANTS & SOIL FROM POSSIBLE OTHER SITE

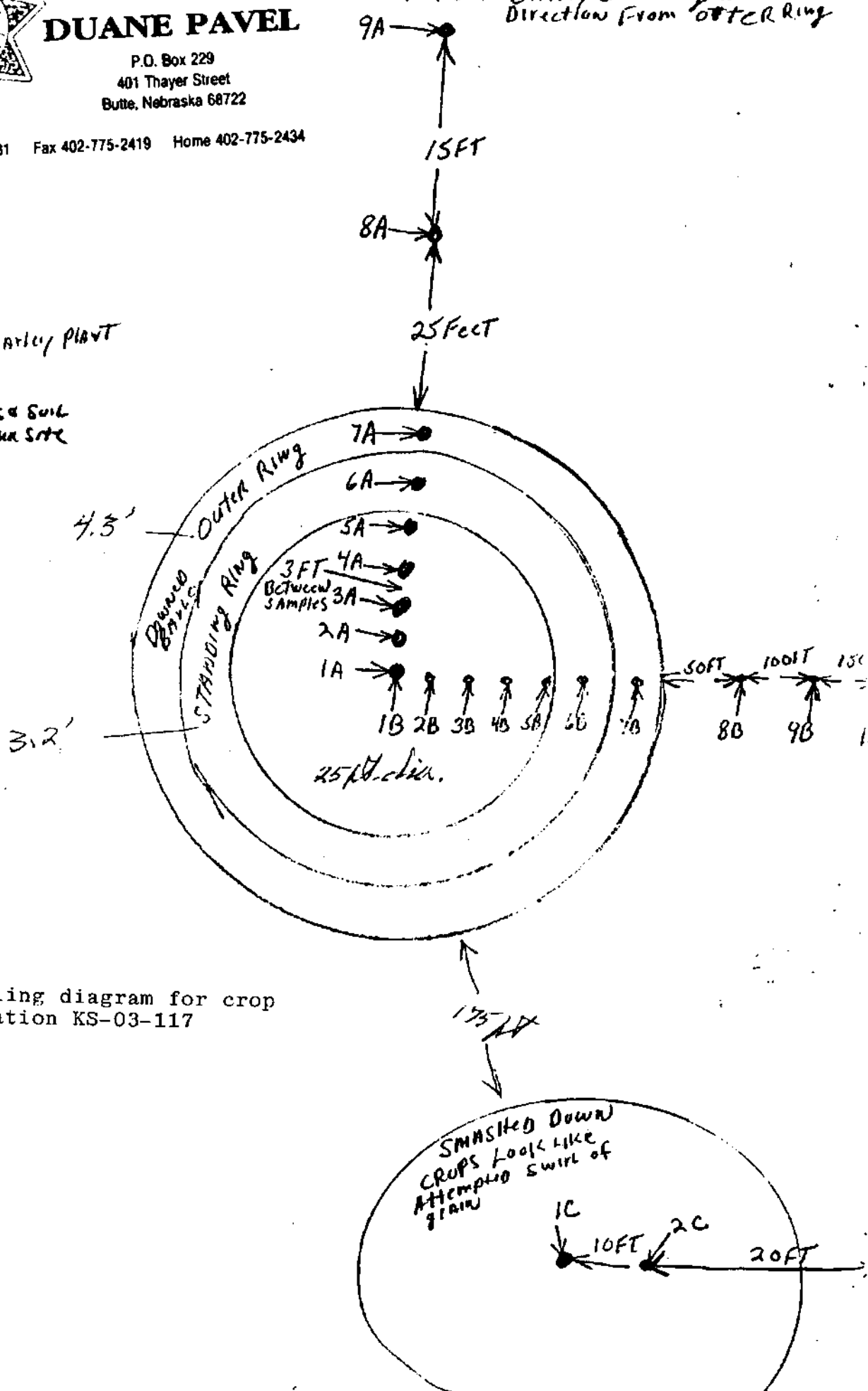
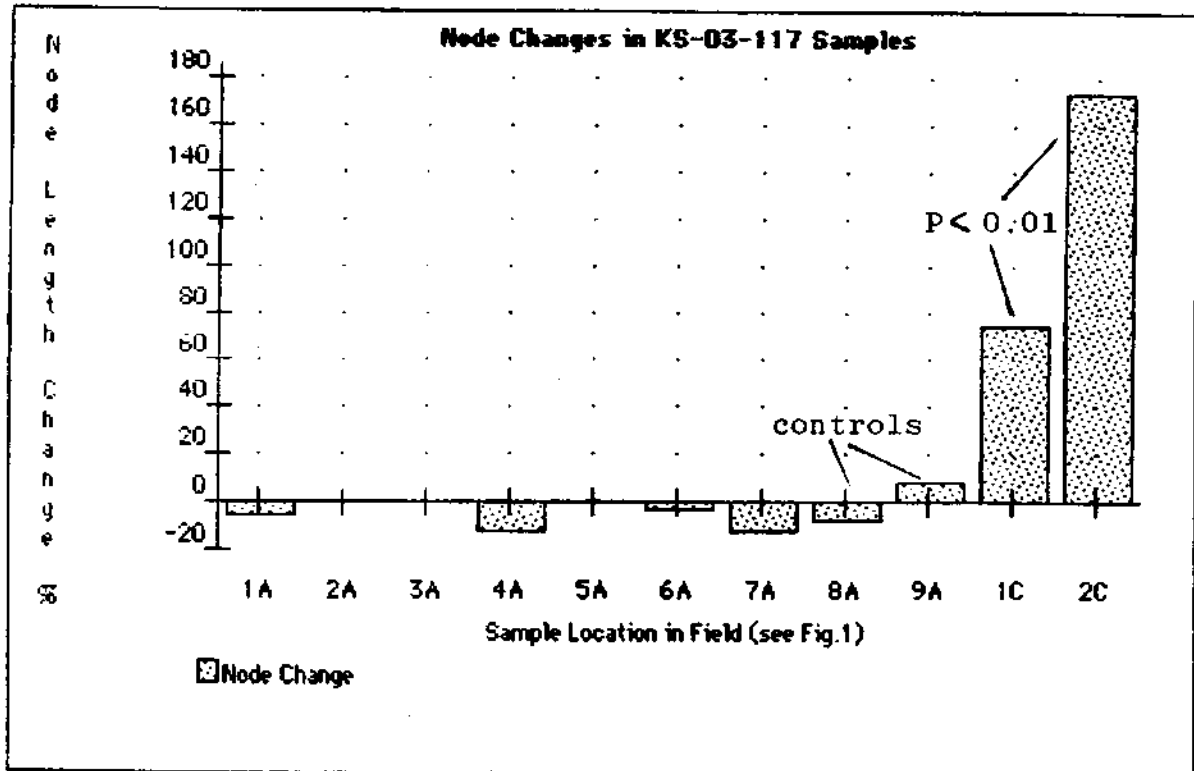
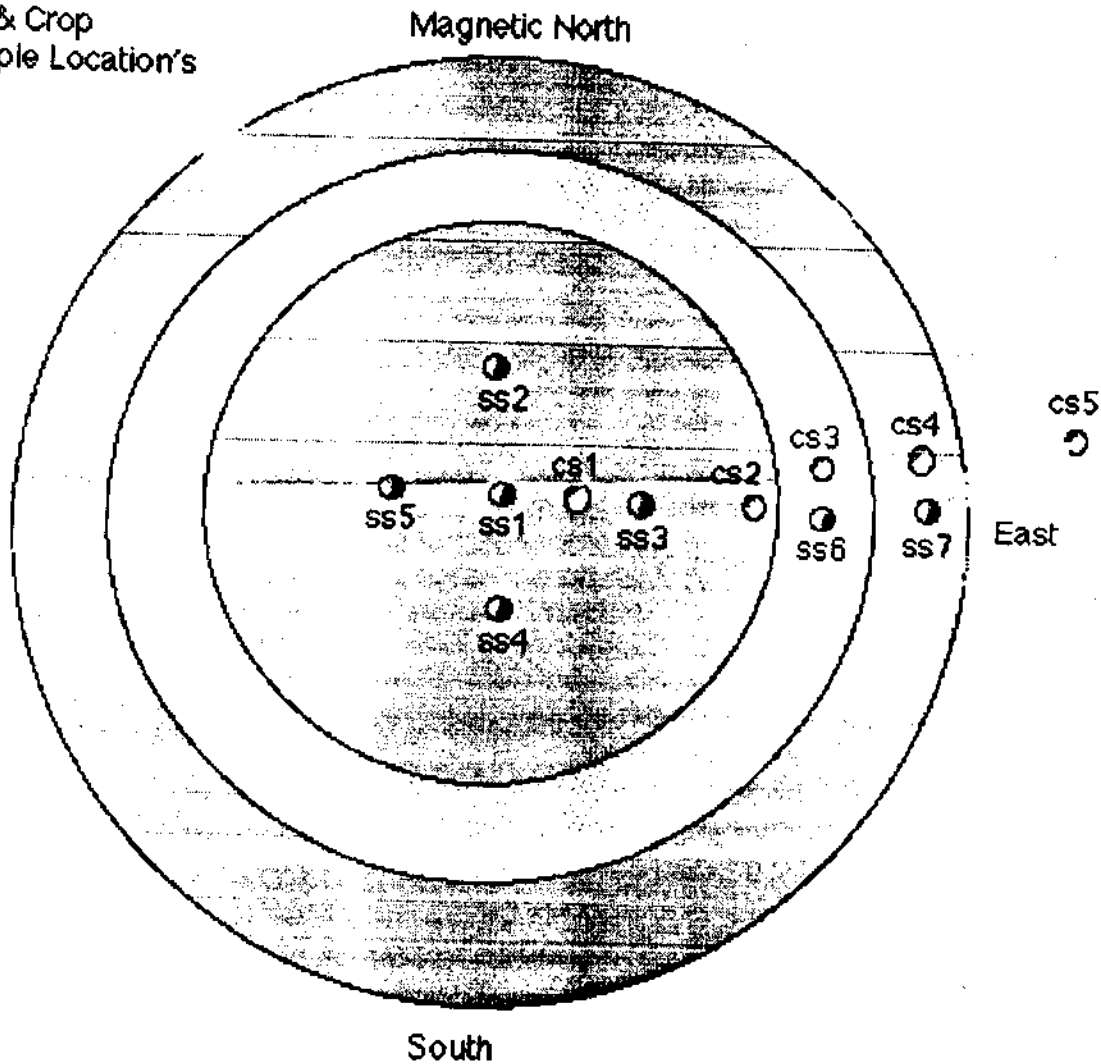


Fig.1 Sampling diagram for crop formation KS-03-117

Fig.2 Node length changes in crop formation KS-03-117  
(node changes relative to mean of controls)



Soil & Crop  
Sample Location's



- ss1= soil sample dead center
- ss2= soil sample at 4'-0" north
- ss3= soil sample at 4'-0" east
- ss4= soil sample at 4'-0" south
- ss5= soil sample at 4'-0" west
- ss6= soil sample at 27'-0" east
- ss7= soil sample at 30'-0" east

- cs1= crop sample in 25' depressed
- cs2= crop sample edge of 25'
- cs3= crop sample 3'-0" standing up
- cs4= crop sample 4'-6" depressed
- cs5= outside control sample

**Crop Circle** at Butte, Nebraska on Mr. Ken Reiser Farm in Boyd County~ Aug. 9, 1996  
 Sample's collected by Harry A. Jordan MFA ~ Asst. State Director MUFON  
 (402) 493-4558 FAX 493-5513 / E-MAIL; hparis2@creighton.edu

Mr. Ken Reiser~Father and owner (402)775-2535  
 Mr. Kelly Reiser (son who discovered circle)  
 (402)775-2674 Sheriff Dwyne Pavel of Boyd County (402) 775-2331