

## **Crop Formations: Blue Ball, Maryland, USA, 1995**

Please Note: The energy-induced, node alterations in the Maryland formations far exceed the levels recorded within any of the 150+ formations examined in this laboratory.

Laboratory Codes: Two Sites, KS-02-168 & KS-03-02

Material: wheat stems and heads. (*Triticum aestivum*)

Formation: Both formations occurred around May, 29, 1995, near Blue Ball, MD. Site #1 (KS-02-168) consisted of a circular shape 42 x 48 ft. in diameter. Site #2 was in the same wheat field (KS-03-02) approximately 300 ft. away and had a rectangular area 23 x 100 ft. with irregular edges.

Sampled: around June 13, 1995, by Mr. George M. Reynolds Sr., P.O. Box 3, Elk ton, MD. and Ms. Nancy Talbott, Cambridge, MA.

Comments: Mr. Reynolds is a former electronics technician and conducted a number of field observations with several types of instruments (compass, gauss meter, microwave meter and an electric field meter). He reported the following:

- at East edge of circle (Site #1) the magnetic field was 0.8 milligauss and 2.5 milligauss at 20 ft. into circle.
- June 11, after finding magnetic North, Reynolds placed his compass down on wheat and traced over a "herring bone" pattern in the formation. He found the needle swung 150-200 east - then he "lifted it back up" (presumably to breast height) and it returned to North.
- June 13, checked this effect out again, only in this case he moved the compass 4-6 ft. at a time to eliminate the possibility of having an iron fragment in the ground—compass responded the same way over a fairly large area.
- the compass and the gauss meter were the only instruments to show anything significant.

### **Laboratory Results:**

At the time of the original sampling the seeds were too immature to conduct a germination analysis. Around harvest maturity Mr. Reynolds and Ms. Talbott returned to the sites and obtained another set of plants with adequate controls. These were sent to Pro-Seed Co. in Blissfield, Michigan where the seeds were planted last fall. This is the first time that seeds from a crop formation have been planted under normal field conditions. These will be carefully observed and growth data taken during the 1996 season. A report will be issued in late 1996, after the field harvest data have been obtained.

Site #1- (KS-02-168)

Since each sample set contained between 15 to 20 plants, any sample group showing a change greater than plus or minus 20% of the overall control mean was statistically significant at the  $P < 0.05$  level. In all plants the node length N1 was recorded at both the A-apical and P-penultimate positions. Each sample set taken from the formation was compared with the control levels.

Controls (100 ft. E and W)	N1 in mm		N-plants
	ave.	s.d.	
A-apical	3.26	0.52	51
P-penultimate	2.64	0.44	43

The percent change in the average A-node length relative to these control levels are shown in Fig. 1, where they have been inserted on the diagram submitted by Mr. G. Reynolds. One sample group (not shown here) was obtained from a 5' diameter, secondary instability circle (so-called "grape shot"), located 10' North of the main formation. This instability circle disclosed a +190% node expansion. As we have pointed out in the past, the small formations do not necessarily indicate low energy regions. Here we find a node expansion equivalent to the maximum level found in the large circle. Note in Fig. 1 that the three sample sets taken two feet outside the formation do not display any significant node changes. This suggests a very abrupt energy change, that is, a very steep gradient between the inner formation and the outer area. In addition to the severe node expansion, two sample groups contained very high frequencies of expulsion cavities in the P-nodes (Samp. #2 at 85% and Samp. #7 at 65%) at levels much higher than is usually found. The expulsion cavities are, as previously pointed out, another indication of very high energies delivered very rapidly.

Although "ridges" are occasionally reported, this formation contained well delineated, linear raised portions. Ms. Talbott referred to these as a "rippled effect" and Mr. Reynolds as "herringbone patterns" (with the lay as shown in Fig. 1). The photographs (taken by Ms. Talbott) in Fig. 2 show a clear-cut raised ridge. This effect stirred up very intriguing questions concerning their formation mechanism. In general, crop formations originate from the organization of "elemental" energy units out of instability products contained within self-organized, chaotic ion plasma vortices. Therefore, it seemed reasonable to apply fundamental fluid dynamic theory in an attempt to examine the basic mechanism of vortex action within these unusual ridge patterns. From this analysis it was gratifying to find a reasonable explanation for the ridges and surrounding formation patterns which was readily compatible with a theoretical model of interacting, rectilinear, moving vortices. This theory will be published elsewhere, but can be obtained as a supplement to this report by contacting Ms. Talbott at P.O. Box 127, Cambridge, MA 02140 or this laboratory. [Not available until approx. late 1996, early 1997.]

Site #2- (KS-03-74)

Here as in the previous formation we have inserted the node expansion data onto the diagram (Fig.3) supplied by Ms. Talbott. Again we find extremely high node expansion levels. To refresh the reader's memory, the highest node expansion prior to this sampling was from a 1994, UK, formation sampled by Barry Reynolds (Report No.30), giving a 91% node expansion relative to the controls. This sampling was also within a very energetic formation containing "nests" of interwoven Plants.

An interesting feature on the Fig.3 diagram is the region at the East end of the field showing alternating 6' wide strips of standing and downed crop. This becomes of particular interest when it is noted that Sample #1 from the standing strip has a +142% node expansion whereas the contiguous 6' downed strip (Sample #18) shows only a +40% expansion. This would indicate that the standing strip received the major portion of the energy, whereas the center strip was already down when the energy impacted the plants and was partially protected by being on the "lee" side of the upright, outer strip.

Further indications of the energy source originating at the East side of the field is apparent when examining the distribution of node expansions across the confines of the formation. As one scans from East to West there is a subtle decrease in the node expansion levels. If the origin of the energy was indeed at the East end of the field, then one might find an energy absorption effect by applying the Beer-Lambert or Beer's law analysis (as previously described). In applying this analysis all the data from within the rectangular area were included, with the exception of Sample #2 taken at the edge of a standing strip which may have partially blocked the energy.

The  $\ln(N1)$  data for both the A-apical and P-penultimate nodes are presented in Fig.4 as linear regression curves. Although the correlations are much lower than we have seen in the past there does appear to be a roughly decreasing trend across the formation. The pronounced scatter of the data around the regression curve appears to be due to localized variations in the energy patterns within the formation, rather than being attributed to measuring errors. If we compare the scatter patterns-as indicated by the dashed lines in Fig.4-we see that they are essentially identical, thus indicating that the variations are an inherent aspect of the sampling location. In other words, there may have been excessive turbulence within the formation which would account for localized variations. The undulating outline of the formation as shown in Fig.4 is a further indication of internal turbulence.

The photographs in Fig.5 are representative of the node differences observed within both of these formations. The close-up not only provides details of these gigantic, expanded nodes, but also demonstrates how simply these differences can be observed and measured.

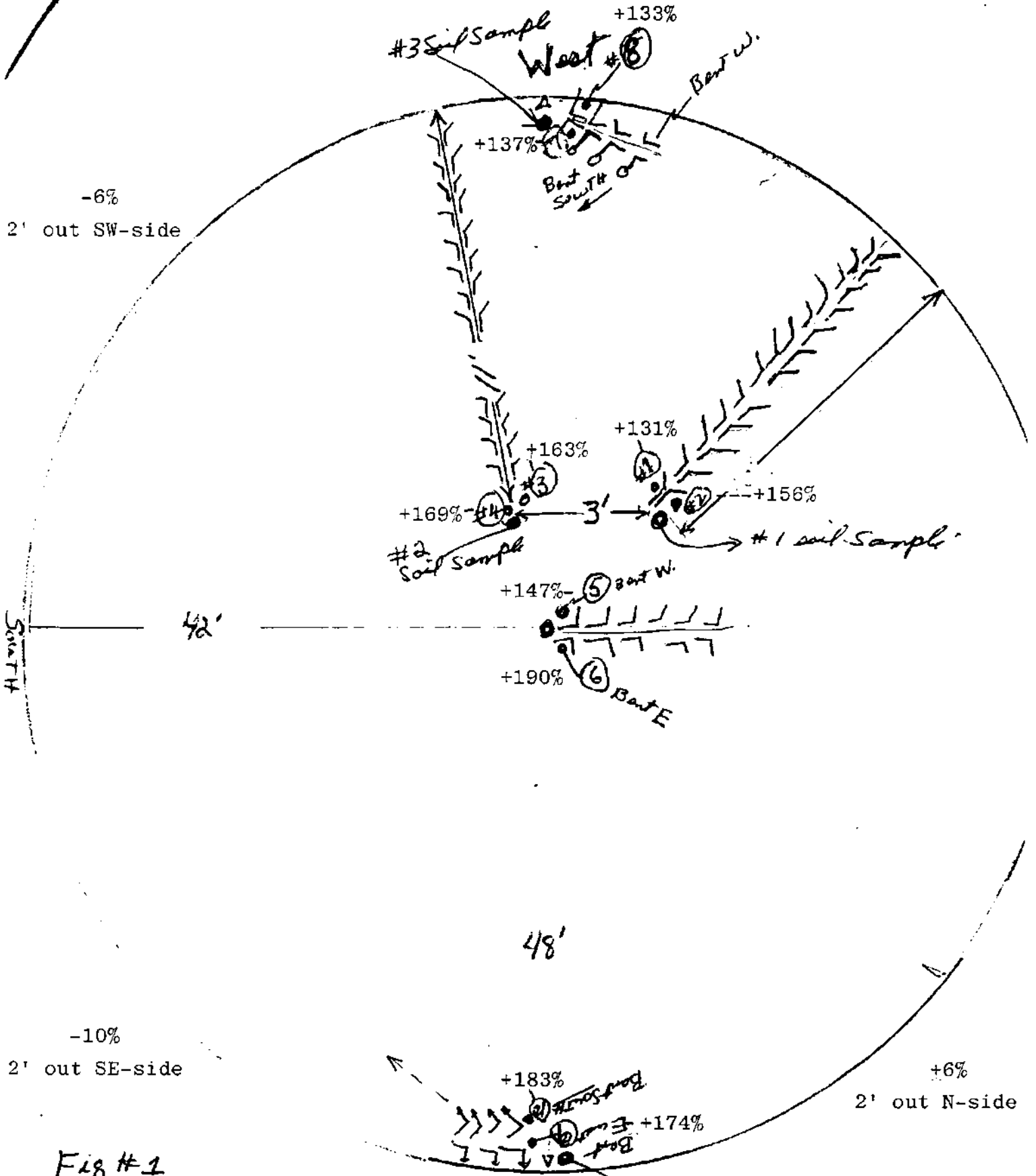


Fig #1  
 Winter wheat,  
 LADY CAME HOME MAY 29TH.  
 SAW CIRCLE IN FIELD CLOSE TO  
 HOUSE, FAIRLY ROUND - AND FLAT.  
 HAS COME BACK UP SOME.

East

#4 Soil Sample

Blueball, MD (#1 site) July 8, 1995 - wheat

Fig 2.  
KS-02-168

Note sinuous "S" curve in crop lay - it is near center of formation + heads toward a swirled "epicenter" (see photo #3). Lay had "rippled" effect generally, with nearly 90° bending @ apical + penultimate nodes.

#1

#2



BB #1

#3



Lefty - #1, #2 + #3 all of "S" curve - #3 shows "S" curve at a distance, heads toward an "epicenter" swirl.

Man in #2 is clear George Reynolds, with magnetometer. No changes in magnetometer readings on 7/8/95

MAP #2

6/29/95

Fig. 3

BLUE BALL, MD SITE # II

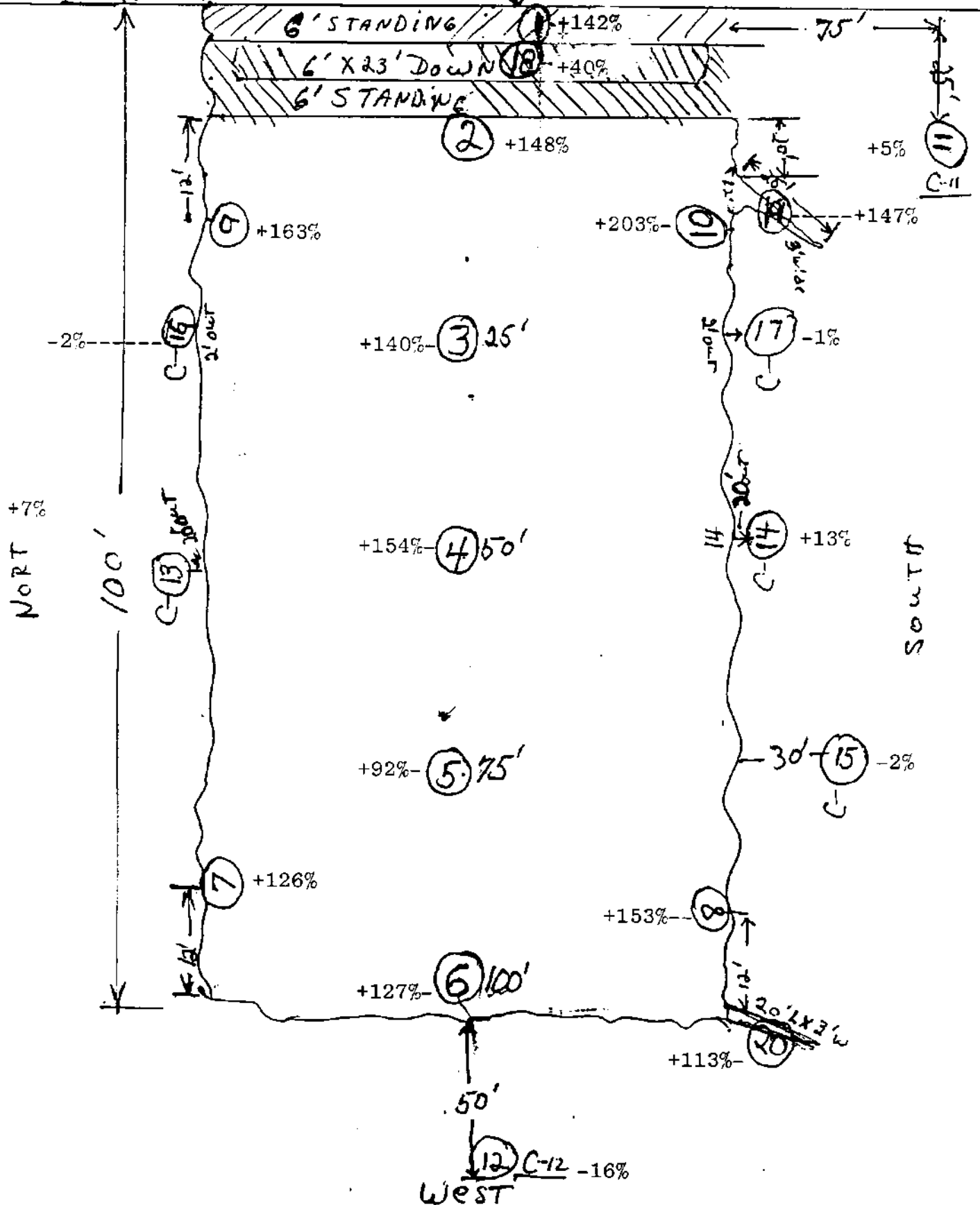
POWER LINE

KS-03-02

RT 645 30' BLUE BALL RD.

6/30/95

BANK ROAD TO WHEAT FIELD 30'



Blue BALL # II SEPERATED BY 300 FT. SOUTH OF BB #1

SEE ENCLOSED MAP #2

G.M. REYNOLDS

Fig.4 Linear regression analyses showing indications of longitudinal energy absorption (Beer's law effect) in KS-03-02 formation. Note similar patterns of scatter (dashed lines) in the mean N1 values from the A and P sample groups. This shows the variations are an inherent aspect of the formations and not due to measurement errors.

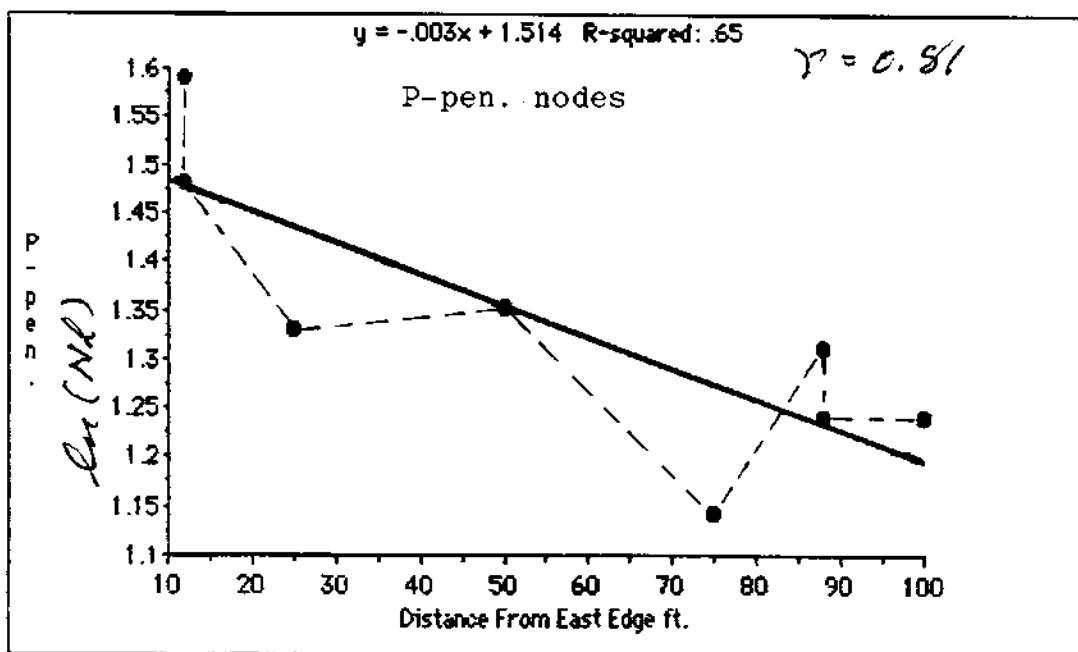
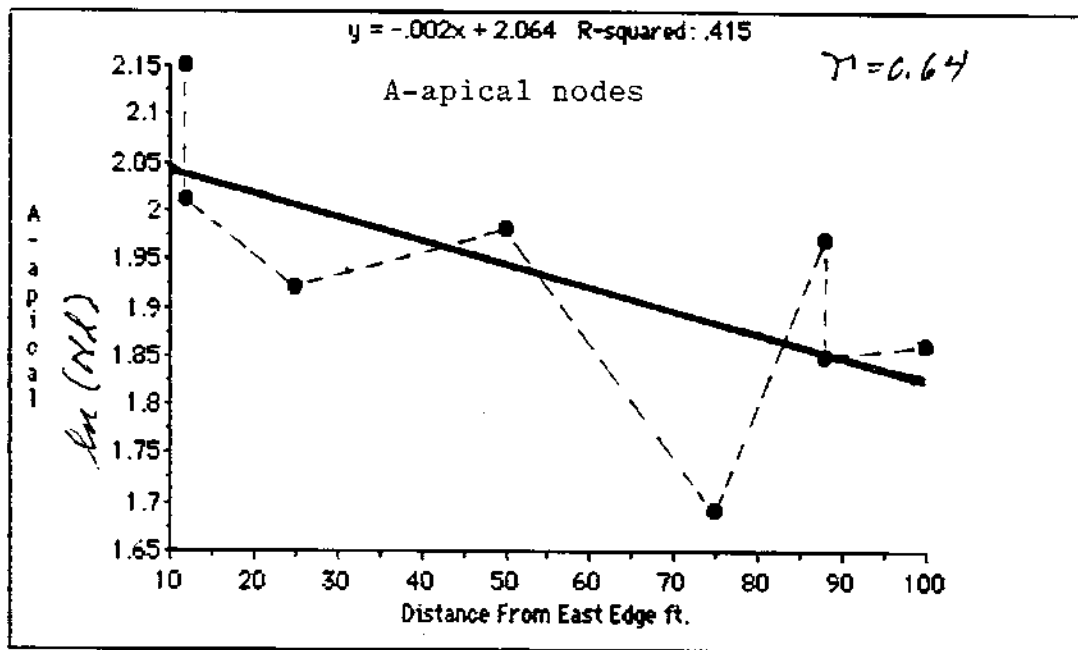
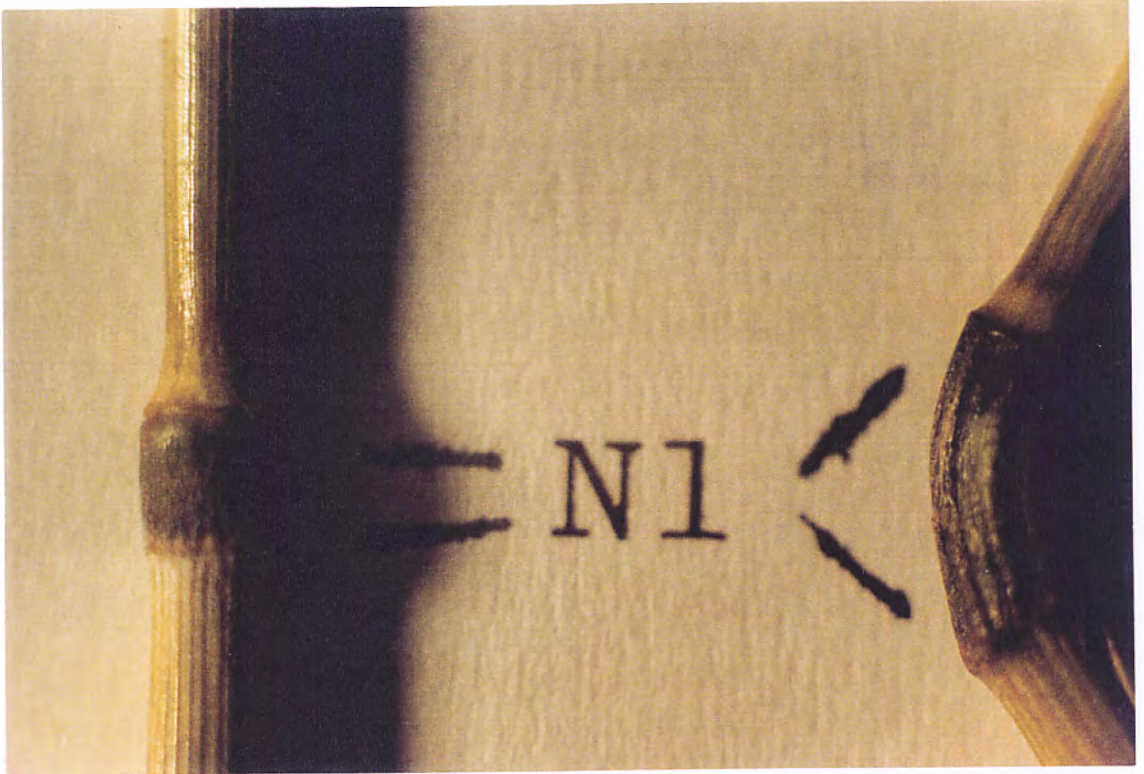
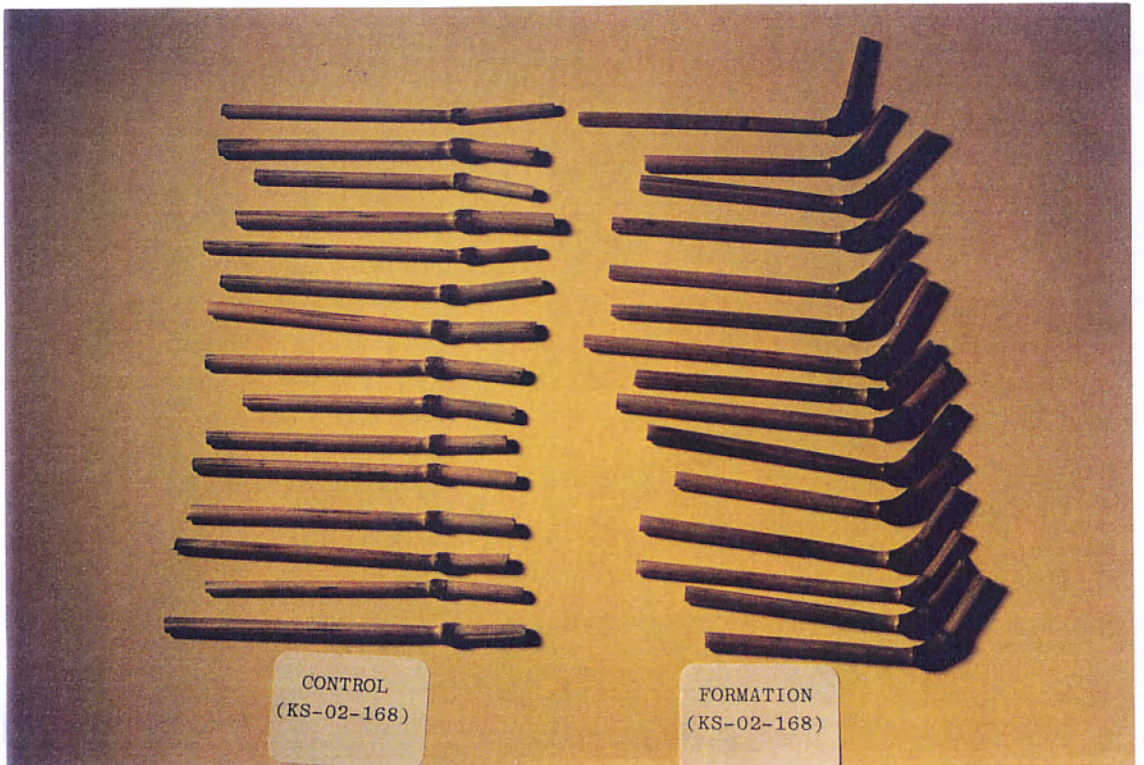


Fig. 5: Node differences (lengthening & bending) between normal "control" wheat stalks and formation plants from formations sampled in early June, 1995 at Blue Ball, Maryland. (KS-02-168 and KS-03-02)



A. Normal node in control plant on Left; huge expanded node from formation plant on Right.



B. Many examples of normal control nodes on Left, expanded and bent formation nodes on Right.



#1

BLUEBALL SITE #1, Blueball, MD (Wheat)

Photographed 10 June 1995, formed approx. 10 days earlier. Some recovery of crop, due to photosynthesis is evident; note turbulence of crop lay in photos #1, 2, and 3.

Photos #4 & 5 show swath cut through lay, with crop on left bent nearly 90° LEFT at nodes and crop on right bent nearly 90° RIGHT at nodes. Node bending and extreme lengthening noted throughout formation.

Photo #6 shows compass indicating 20° E. of North inside formation in area of severe bending.

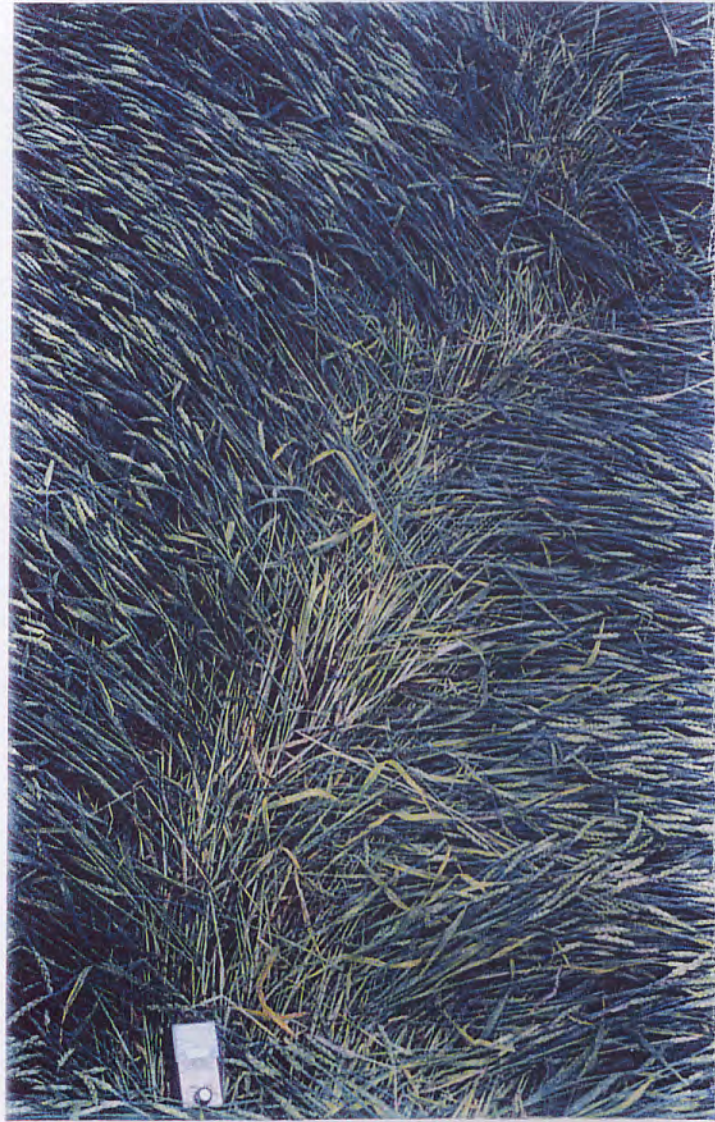
Formation found and sampled by George Reynolds, Elkton, MD; all photos by George Reynolds, for BLT Research, Box 127, Cambridge, MA 02140 USA.



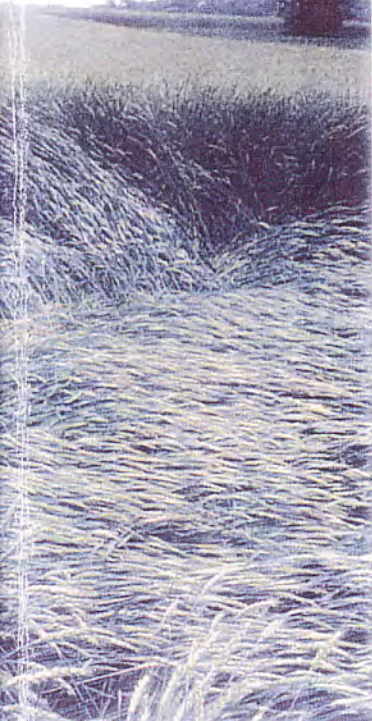
#3



#4



#2



#5



#6

