Crop Formation: Street, Maryland, USA

Laboratory Code: KS-03-93
Material: Barley-entire plants, *Hordeum vulgare*.
Formed: Early to mid May, 1996
Sampled: June 2, 1996, by Larry S. Newnam, Arlington, Virginia and Lyn Winer, Bell Air, MD

Results and Discussion:

This formation consisted of a complex of irregularly downed areas (often called "Dragons Feet" in England) and the sampling coordinate was designed so that it bisected two of these downed regions. Each sample set contained between 10 and 20 plants. The seed heads were immature, therefore, germination tests were not conducted.

The results from the node length measurements were entered on the Newnam sampling diagram in Fig.1, attached; the percentages shown are relative to the mean node lengths of five control groups (C1, C2, C3, C4 and C6). The data from the C5 set (which was an area of standing crop between two randomly downed areas) was not included in the control analyses because the 16% node expansion found in C5 lies outside the range of variations in the other five controls, which range from +7% to -4% or an 11% total variation. As we have seen in the analyses of previous formations, when a sample is taken between two downed areas, there is often a spill-over effect from the vortex energies, and this is certainly indicated here.

All sample sets from the formation have highly significant node length increases. It is interesting to note that the "standing tuft" area (sample S3) also exhibits significant node expansion. This is typical of many formations we have examined, in which standing tufts of crop inside a generally downed area have displayed significantly increased node lengths, relative to the controls taken outside the overall formation. Although the S3 plants received a significant amount of the vortex energy, their node expansion was much lower than the plants from downed areas. In addition the upright tuft plants did not disclose expulsion cavities, as did the downed samples. The expulsion cavities are another strong indication of high transient heating from the vortex energy.

In the UK formations we have never observed node expansions greater than around 90%, and in the majority of these formations the node expansion has been in the 30 to 40 % range. Here, in the Maryland samples, we find the maximum levels to be in the range of 120% -- why this big difference between the UK and USA sites? This was a question we asked ourselves a few years back when we were first made aware of the possible relationship between node length expansion and the spatial-geometric variations in all crop formations. To answer this question it was necessary to ask a second; namely, what is the most significant factor influencing the final form and geometric outline of a crop formation?

After examining our extensive data base, it was realized that the degree of stability or turbulence in the atmosphere surrounding an incoming ion plasma vortex would be the most influential factor in determining the ultimate uniformity and geometric outline of the crop formation. All subsequent data, including that obtained from the Street, MD formation, substantiate this conclusion. We can now address our first question regarding the node expansion and shape differences between the USA and UK, crop formations. In the USA, the summertime weather conditions are such that very turbulent conditions can develop, often with tornadic winds. The result is that such violent weather (not typical in the UK) contains a high degree of local, convective turbulence, which in turn breaks up the uniform, laminar flow within the ion plasma

vortex and prevents the formation of the large-scale, delicate, geometric forms seen most often in the UK. Imprinted in the field are a number of smaller irregular formations, such as those shown in Fig. 1.

In other words, there is no need to postulate specific USA or UK "types" of crop formations, but rather to consider the different external conditions to which these vortex energies are exposed. In summary, we may define this situation (in a general sense) as follows:

USA--- Convective Turbulence—Severe Node Expansion—Irregular Geometric Form

UK--- Slight Turbulence------Moderate Node Expansion---Smooth Geometric Outline

Included with these samples was a map of North Central Maryland, on which Mr. Newnam pointed out the location of five crop formation events during the 1995-96 seasons. In the three examined in this laboratory the condition of convective turbulence was quite apparent. In the 1995 formation at Blue Ball, MD, node expansions of around 200% (relative to the normal controls) were found to occur uniformly throughout the formation, and the energy-induced node alterations far exceeded the levels recorded within any of the 200 plus geometric formations examined in this laboratory. In outline the Blue Ball formation had a simple rectangular shape, but with very irregular undulations at the edges (see ref. [1]). The data from the Street, MD, formation fit very well into this same pattern and clearly suggest the presence of transient heating from an ion plasma source.

Reference:

[1] "Crop Formations: Blue Ball, Maryland, USA, 1995", BLT Report No. 51, Issued Jan. 28, 1996.

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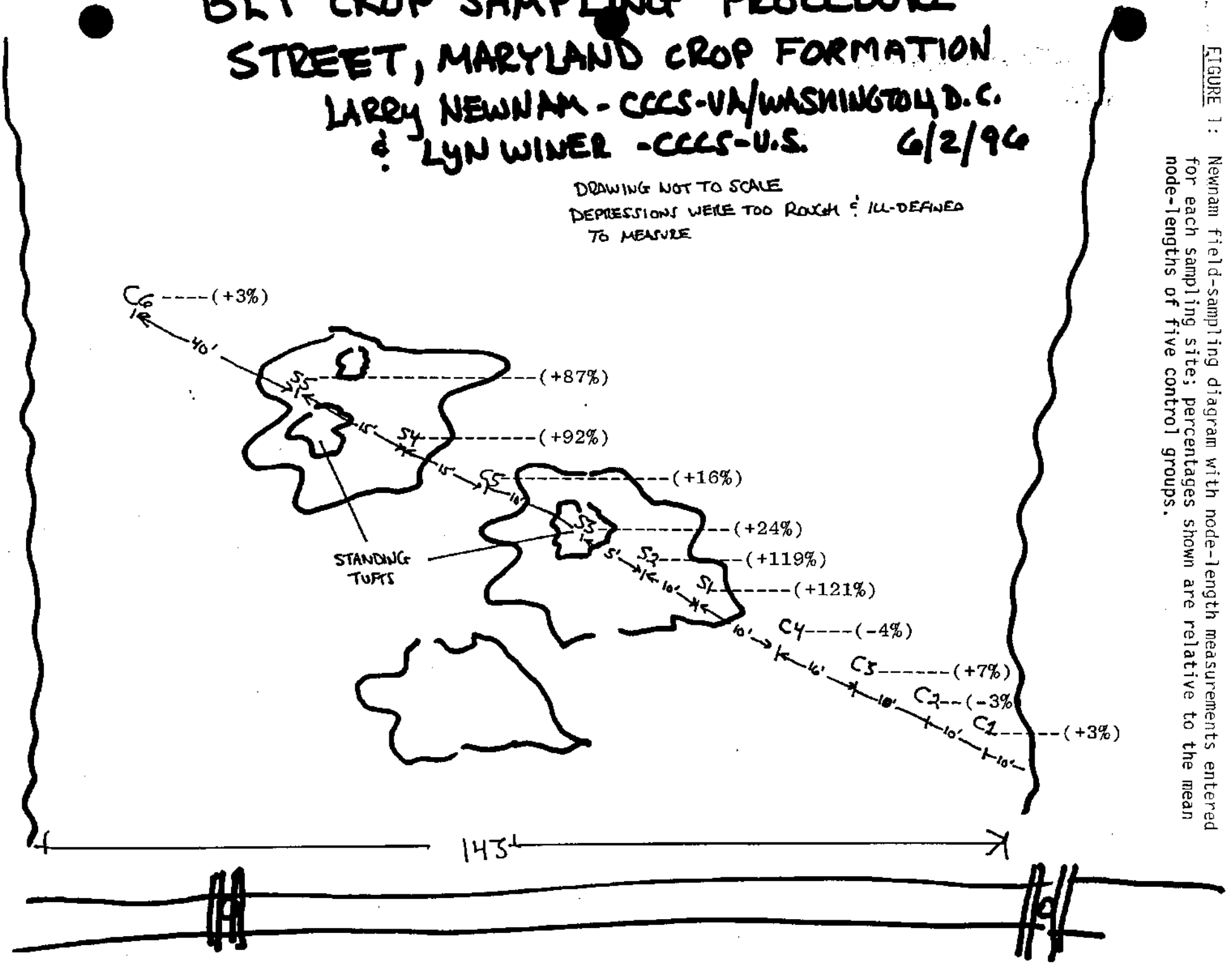

FIGURE 1: Newnam field-sampling diagram with node-length measurements entered for each sampling site; percentages shown are relative to the mean node-lengths of five control groups.