

Crop Circles

Working
Protocol

vers. 2007



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Instructions

The 2007 version of the “Crop Circles” Protocol for field surveys is a handbook with 3 levels of analysis for field research and laboratory testing.

The three levels of analysis have been introduced, compared with the previous version, in order to obtain results with both a minimum amount of equipment and when researchers have additional time and resources at their disposal.

Level 1 may be defined as a “quick test”. Testing the elongation of the “apical node”, the expulsion of nodes 2 and 3 and the possible presence of significant amounts of magnetite and haematite may already indicate the presence of anomalies. The research could therefore end at this first level.

If one has more time (an hour to an hour and a half) it is possible to move on to **Level 2**, the interview with witnesses, which serves to gather interesting data in order to evaluate the phenomenon, such as the observation of strange lights or unusual phenomena. For this part it is advisable never to talk about unidentified flying objects with interviewees.

Then if the researcher has good equipment at his/her disposal and more time, it is possible to move on to **Level 3**. It is not however necessary to have all types of measuring instruments in order to obtain interesting findings. Simply by completing the sampling of ears, kernels and soil, for laboratory testing, data can be sufficient to have a more complete picture of the situation.

The gathering of materials for laboratory testing must be carried out in agreement with the persons that will perform testing, in order to avoid irremediable damage to the samples that would make the study worthless. In all cases however it is necessary to carry samples in sterile containers, for analyses, being careful to store them in a safe place and not to wait more than a few days before delivering them to the laboratory. These simple precautions should ensure satisfactory results in any test laboratory.

This study Protocol can be used by an individual with considerable time and equipment at his/her disposal, but can also be ideal for a group of researchers split up into 2/3 teams, in which each member can handle one or two tasks.

If you have any questions or wish to make suggestions about this text, please contact the authors of this Protocol:

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Level 1

- 1 Contact the land owner and ask for **permission to enter** the field.
- 2 Walk around the outside of the formation with a **video camera and/or a camera**, filming and/or photographing the design from all angles. Attempt to photograph the entire formation using a telescopic pole or raising the tripod as high as possible.
- 3 Inside the formation, film and photograph every **change of direction of flow** and **every unusual feature** you come across. Always move following the flow of the ears so as not to break them. Look for **layers of plants**, and if there are some take photos or film them. Take some photos of the apical node elongation and the expulsion cavities to the 2nd and 3rd nodes in situ.
- 4 **Draw the formation in a notebook** as it is perceived in the field, attempting to indicate the flow of plants using direction arrows. Then take the measurements of the formation using a tape measure and put them down on paper. Also specify the crop type (wheat, corn/maize, barley, alfalfa, etc.).
- 5 Find North **outside the formation, using a compass. Inside the formation**, measure the possible distortion in the magnetic field, taking compass values in at least 3 different points of the formation (mark on the drawing in the notebook the points where the measurements are taken).
Take compass measurements by first holding the compass in the palm of the hand and then placing it on the ground. Step away from it entirely before noting any compass change. Don't wear jewelry or other metals in the clothings.
- 6 Take minimum 5 **samples** (a sample is 15-20 complete plants) **of control plants** from outside the formation, at least 170 metres (510 feet) from the edge of the formation. Controls should be taken in a straight line (compass direction **MUST** be noted on field diagram) at 2m, 4m, 8m, 16m, and 32m outside formation (if the field will allow this). Such basic sampling would permit one to observe a decrease in node length in standing plants (at home) outside the formation if it is present (until 100 metres – 333 feet).
- 6a Take minimum 5 **plant samples from inside the formation** (a sample is 15-20 complete plants) and mark relative positions in the notebook, following a scheme that goes from the outer area to the centre (or centres) and from the centre to the outside of the formation.
- 6b (at home) Check, for each plant taken from inside the formation, the possible **elongation of the "apical node"**, the top node of the plant below the ear. Mark in **Table level 1**: whether there is elongation, and the average percentage of elongation compared with the control samples.
- 6c (at home) Check, for each plant taken from inside the formation, the possible **cavity expulsion** of nodes 2 and 3 (for both ripe and unripe plants). Mark in **Table level 1** whether there is an expulsion.
- 7 Using a large magnet **take magnetite that may be present on the ground**, as follows:
Attach the magnet to a long piece of string and place it inside a plastic bag, then tie the bag to the string with a knot. Once the magnet is ready, pull it along using the string, following the flow of the crop, along the edge of the formation, then repeat. Then do the same 3 times around the centre (or centres). Use a different bag for each of the samples. Every time you finish taking material, close the bag so that the ferrous material remains inside. This magnetic material is very small but very significant if present.
If material is found inside the formation, repeat the same sampling procedure outside the formation.

Equipment

- Camera, if possible, both film and digital (if it is possible to take night shots, the use of infrared film is recommended; to be treated with due caution).
- Telescopic pole or tripod for camera and video camera.
- Video camera.
- Ball of string and tags to divide and catalogue bundles.
- Notebook and pen to make notes, indelible markers to write on labels.
- Long tape measure, rigid or retractable, to measure the formation and particular features.
- Compass, liquid type preferable.
- Large magnet, string and plastic bags (min. 3).

Table Level 1

1 Site: _____

2 Likely date of appearance: _____

3 Date of surveying: _____

4 Crop type: _____

5 Specify if Non Geometric Crop Formation (N.G.F.) [y/n]: _____

6 Magnetic distortion of compass (deviation from magnetic north in degrees, in c-w direction): _____

7 Elongation of apical node [y/n]: _____

7a Average percentage of apical node elongation vis-à-vis the control sample [%] _____

7b Average percentage of elongated apical nodes vis-à-vis the control sample [%] _____

8 Expulsion of 2nd node [yes/no]: _____ Expulsion of 3rd node [yes/no]: _____

8a Percentage of blown 2nd nodes vis-à-vis collected samples [%] _____

8b Percentage of blown 3rd nodes vis-à-vis collected samples [%] _____

Name and Surname of researcher: _____

Site _____

Date _____

Level 2

(Interview with land owner or people living near the field)

1 Name and surname of witness:

2 Structures in the vicinity of the field and type (telephone facilities, power lines, military installations, nuclear power plants, etc.) and water features nearby (i.e, streams, ponds, rivers, lakes, watering troughs for animals, etc.):

3 Anomalies and interference with equipment (television sets, mobile phones, computers, batteries of cars or tractors, flashing house lights, etc.):

4 Unusual phenomena (strange sounds, unknown aerial lights, unusual smells, unusual animal behaviour) - (do not mention unidentified flying objects to witnesses, but not bring it up first):

Name and Surname of researcher: _____

Site _____

Date _____

Level 3

- 1 Check (outside the formation) the **Geiger**, **Gaussmeter** and **frequency meter** and write down values
- 2 Take (outside the formation) the **pH**, **humidity and temperature** of the soil
- 3 Check the **Gaussmeter** and mark down any magnetic distortion (inside the formation)
- 4 Check the **Geiger** and the **frequency meter** and mark down values (inside the formation)
- 5 Measure the **pH**, **humidity** and **temperature** of the soil (inside the formation)
- 6 Take many **soil samples** from the centre, midway point, edge of and outside the formation, at least 170 metres (510 feet) from the edge.
- 7 Take many **kernel samples** from the centre and from outside the formation, at least 170 metres (510 feet) from the edge.
- 8 Take many **samples of ears** (the upper part of the plant containing the kernels) from the centre and from outside the formation, at least 170 metres (510 feet) from the edge.
- 9 Take **photographs of significant features** (e.g. insects, dead or alive; powdery deposits and/or presence of micro-crystals on leaves; presence of pebbles in formation; etc.)
- 10 (at home) **Microscopic** analysis of stalks, leaves, nodes, kernels.
- 11 (at home) Take soil samples to the **test laboratory** (look for isotopes of Ytterbium (Yb), Palladium (Pd), Rhodium 102 (Rh), Tellurium 119m (Te) and Lead 203(Pb) using X-ray diffraction analysis [XRD]).

Equipment

- Plastic or wooden scoop to collect soil samples
- At least 4 sterile plastic containers to store soil samples
- At least another 4 containers (as above), 2 for kernels and 2 for ears (separate), always collected from inside and outside the formation)
- Sticky labels to identify each sample
- Notebook and pen, indelible markers to write directly on plastic containers
- Camera (if it is possible to take night shots, the use of infrared film is recommended; to be treated with due caution);
- pH meter like that used for gardening (= to measure ground acidity/alkalinity)
- Hygrometer like that used for gardening (= to measure ground moisture)
- Thermometer like that used for gardening (= to measure ground temperature)
- Compass (= to measure variation in earth's magnetic field)
- Gaussmeter (= to measure intensity of earth's magnetic field)
- Frequency meter (= to measure electromagnetic wave frequency)
- Geiger-Müller counter (= to measure radiation in the 3 bands alpha, beta, gamma)

Table Level 3

- 1** Gauss-meter: value outside formation _____ value inside formation _____
- 2** Geiger: value outside formation _____ value inside formation _____
- 3** Frequency meter: value outside formation _____ value inside formation _____
- 4** Ground temperature: value outside formation _____ value inside formation _____
- 5** pH meter: value outside formation _____ value inside formation _____

6 Microscope analysis (stalks, leaves, nodes, kernels), observations:

a Kernels: reduction (drying up) of volume and/or dehydration [description]:

b Stalks (check for streaks or colouring, tiny silicon dioxide spheres stuck to leaves (dim. 5 micron)) [description]:

c Soil (check presence of small haematite and magnetite spheres (visible under microscope at x100) embedded in soil particles. Compare with samples collected using magnet during Level 1) [description]:

7 Results of laboratory tests (look for isotopes of Ytterbium (Yb), Palladium (Pd), Rhodium 102 (Rh), Tellurium 119m (Te) and Lead 203(Pb) using X-ray diffraction analysis [XRD]).

Name and Surname of researcher: _____

Site _____

Date _____

www.analysis.altervista.org
www.galileoparma.it

Thank you Paul for the english translation

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