

Grass Ring Formations: California & Oregon, 1996

Laboratory Codes: KS-03-119 & KS-03-147

Locations: Northeastern Modoc, California; and Lakeview, Oregon (golf course)

Material: Grass Samples **Formed:** CA, on 7-25-96; OR, on 10-4-96

Sampled: CA 7-27-96 and OR 10-4-96; both by Ms. Jean Bilodeaux, Cederville, CA

Formation Characteristics:

CA- 32" to 40" wide ring of downed grass (18' dia.)- 4" dia. hole at epicenter.

OR- 18" wide ring (12' dia.) of lush green grass - on a golf course.

Relevant Findings:

- 1) -the influence of the vortex energies on the redox characteristics (respiration rate) of the grass was quantitatively quite different between the two events.
- 2) -in the CA, downed grass ring the energy was sufficient to totally inactivate the mitochondria and consequently shut down the respiration process. The type and degree of damage was suggestive of the biochemical alterations observed in grass proximal to bovine excision sites' (possibly involving microwave radiation).
- 3) -grass from the hole at the epicenter of the downed ring was dead when received at the laboratory.
- 4) -the lush, green plants from the OR, golf course ring were respiring at a higher rate than their controls; the reason being, the plants (sampled in Oct.) were entering dormancy. From previous studies of grass ring material we know that the plants within similar ring formations do not respond to phenologically (seasonal) related factors in the same manner as normal, control plants.

Results and Discussion:

KS-03-119 (downed grass ring)

The redox test results are summarized in the following table. The plants were sampled on 7-27-96 and were fully hydrated when examined in the laboratory.

| Sample | Redox Ratio | | Coefficient of Variation-V |
|---------|-------------|-------|----------------------------|
| | ave. | s.d. | |
| Control | 0.396 | 0.744 | 201.0% |
| Ring | 0.062 | 0.006 | 9.7% |

The very low coefficient of variation in the ring plants clearly suggests that the causative energy system has severely damaged the mitochondria— to the point where the plants are not respiring (no cycles of redox activity). Studies with plants from bovine excision sites have shown that this plant damaging radiation is probably microwave in nature.

KS-03-147 (lush grass ring, Oregon)

The golf course grass was sampled 10-4-96. Below are the 12-sequence test data for the ring and control sample.

| Sample | Redox Ratio (Rr) | | Coefficient of Variation-V |
|---------|------------------|-------|----------------------------|
| | ave. | s.d. | |
| Control | 0.191 | 0.149 | 78% |
| Ring | 0.391 | 0.536 | 137% |

Here we find both the mean and V-value are low in the control sample. Generally the mean Rr level in normal, control grass samples lies in the range of 0.4 to 0.9 (depending on the species), with V around 100 to 200% (it should be kept in mind that s.d. and V indicate variations in the respiration cycles taking place during the 12-sequence test period).

Since the samples were taken in October, 1996 the low Rr value in the controls may be explained by the fact that the plants would, at this time of year, be undergoing biochemical changes related to dormancy. In previous studies we have consistently observed that the plants from the lush green rings do not respond to the phenological factors such as temperature and light-dark conditions in the same manner as normal plants; further they are regularly observed to be growing out of phase compared with other grass in the area. In this case we observe that the ring grass is maintaining a higher level of respiration than would be expected at this time of year due to the seasonal dormancy effect.

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REFERENCE

- 1) "A STUDY OF BOVINE EXCISION SITES FROM 1993 TO 1997", BLT Report Red.-06: issued October 8, 1997.