OPTIMA QUANTA · MONACO QUANTUM ELEMENTS ASSOCIATION

Zimbabwe Field Trial — Season Update

SUMMARY

The season's first harvest results from our Zimbabwe field trial are positive. Drawing on satellite monitoring, laboratory soil analysis, and direct accounts from the ground, the treated field consistently outperformed the untreated control fields — with our partners on the ground estimating a yield increase of between 20% and over 70%, most notably in maize, and describing treated areas as remaining "evergreen" through drought conditions where untreated areas did not.

This is an encouraging result from our first full-season trial in Zimbabwe, and one we are pleased to share with shareholders and partners who have been following this work.

PARTNERSHIP AND SCOPE

The trial was carried out by ZIMSOFF, the Zimbabwe Organic Farmers' Association, and the Monaco Quantum Elements Association, with Optima Quanta providing the technology on a pro bono basis.

- Treated area: approximately 10,000 hectares of mixed crops.
- Control area: three separate, adjacent untreated fields totalling approximately 5,000 hectares.
- The treated area represents roughly 8,000 farming families, for whom this season's results are a meaningful and positive development.

It should be noted that no formal, official trial report has been produced for this season. Heavy rain and resulting mud made parts of the fields difficult to reach for extended periods, and fuel and logistics constraints further limited travel between sites, so a fully documented, weighed harvest report was not possible. The picture presented below instead draws on satellite monitoring, laboratory soil analysis, and direct accounts from our partners on the ground — which, taken together, point consistently in the same positive direction.

THE EVIDENCE

Soil chemistry

Laboratory analysis showed a significant improvement in soil health in the treated area: pH rose from an acidic 4.7–5.4 range in the control fields to a much healthier 6.1. Mineral nitrogen also improved, by approximately 10%.

(Soil samples were taken several weeks apart between the treated and control areas, so the nitrogen comparison in particular should be read as indicative rather than exact.)

Satellite monitoring

During the February drought, satellite imagery showed the treated field sustaining higher and more spatially coherent vegetation health (NDVI) than the controls, with slower onset of drought stress – consistent with the improved water and nutrient uptake we would expect from healthier soil chemistry.

Farmer harvest account

Our partners on the ground, who farm and observed both treated and untreated areas throughout the season, estimated the yield increase in treated areas at 20% to over 70%, most notably in maize, and described treated areas in drought-affected zones as remaining "evergreen" while untreated areas were not. This account was reviewed and confirmed as accurate.

Photographic comparison

Side-by-side photographs comparing representative plants from treated and control areas are consistent with the other signals: the treated plants show fuller canopy and stronger root development.

Treated-field plants (right) alongside control-field plants (left), sampled at matching growth stages.

LOOKING AHEAD

Given these results, we look forward to expanding this technology to more farmers across the region in the coming seasons and continuing our partnership with ZIMSOFF and the Monaco Quantum Elements Association in support of that goal.

- Move to a more controlled soil-sampling protocol next season – a baseline analysis immediately before treatment, and a second analysis afterwards – to isolate the treatment effect more precisely.
- Work toward a fully quantified, weighed yield comparison, logistics permitting.
- Continue satellite monitoring across a full season to confirm the pattern observed this year.