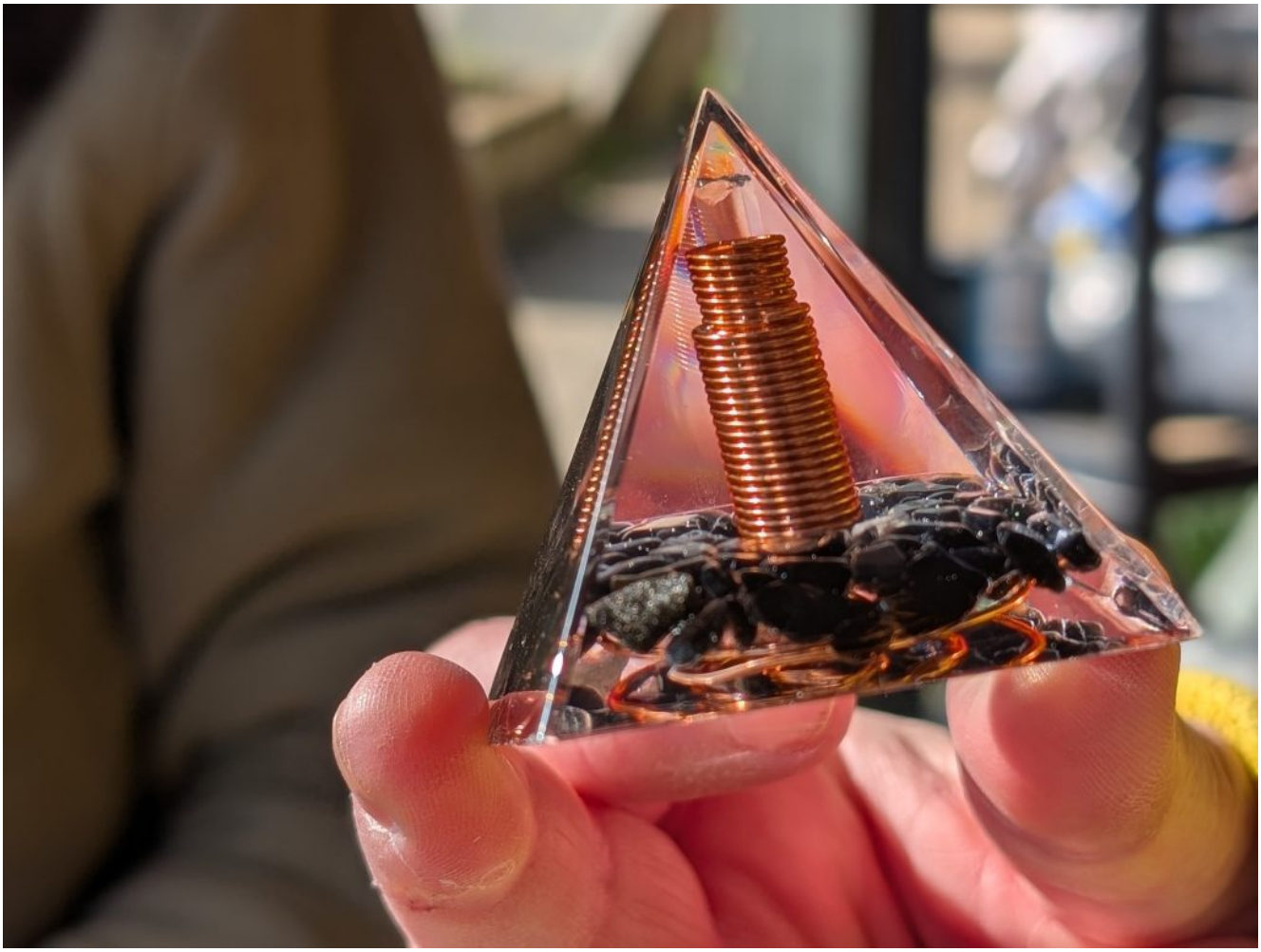
West Lothian growers supercharge their vegetable patch

Growers at a community garden in West Lothian are supercharging the soil with natural forces in a bid to boost vegetable and fruit production, and fight climate change.

The project will test the effectiveness of electro culture, a re-emerging concept which harnesses the energy of atmospheric electricity, polar magnetism and natural minerals. The off-grid method channels earth and sky to support plant vitality.

Project leader Helen Triplett said: “Some of the old ideas are the best,” as she described the experiment sponsored by a local climate action team.

Pyramid organites, with copper wire or other conductive materials are inserted into the soil around plants so that atmospheric electricity is captured as” free” energy that sustainably enhances plant growth.



Helen has made the organites she will use on the experiment but similar organites, which blend crystal with natural conductors and are widely commercially available.

With climate change impacting food systems, it’s hoped the cutting-edge approach to horticulture can offer the potential to increase harvests, improve soil health and boost biodiversity, while reducing environmental impact.

The pilot project is taking place in four raised beds at Strathbrock Community Garden, Broxburn, which has about ten volunteers cultivating 60 beds in total.

Helen Triplett became interested in the idea when advancing her studies in soil science.

The effect of natural energy has long been observed in lightning-hit crops, which tend to grow faster and larger. The intense, sudden heat of a lightning strike causes nitrogen to

bond with the oxygen; creating nitrogen oxides that mix with the rain and water plants with nitrate-rich rainfall speeding up the natural absorption and growth rate.

Once a fringe interest, electro culture is now being revived by eco-minded growers like Helen, who qualified in horticulture with plantsmanship from the Royal Botanic Garden Edinburgh and is now working in her honours project with the SRUC.

Helen described the live experiment over this year's main growing season. Each of the beds will be filled with the same mix of soil. They will then receive a prescribed growing mix of peas, broad beans, onions, lettuce and beetroot.

"They will have no fertiliser, none of the magic that goes into the other beds," said Helen. "We use the energy that's in the atmosphere to create a vortex to direct the energy to the soil."

The direction of spirals is dependent on the northern or southern hemisphere. The first bed will place the spirals at different heights, the second will use organites: pyramid structures that combine the metal spirals with crystals. In the third bed, the system will be placed under the soil to measure its influence. The fourth bed is a control.

"As long as we get the vortex through the soil, we're expecting good things," said Helen.

Helen has noted in her own garden the improvements to plants by placing organites near them, with healthier, larger and more productive plants compared with the same species growing nearby.

Helen hopes the project will build a template for future applications of electro-culture that can be demonstrated by holding community workshops on the technique. The experimental plots will also encourage the community to get involved

through practical demonstration. The garden is well established in local food growing and working with school children.

The project has been supported by West Lothian Climate Action Network (WLCAN). Broxburn and Uphall Development Group was awarded money from WLCAN, one of Scotland's regional climate hubs, which supports local projects to tackle climate change. The growers have used the award for materials to get their project off to a start.

It was one of 14 projects given part of WLCAN's eco development funding, which is supported by the Scottish Government.

Helen added: "What makes this project special is its spirit: a blend of community, ecology and innovation. It's not just about growing food – it's about growing understanding, engaging minds and nurturing a deeper relationship with the soil beneath our feet. We're incredibly grateful for the support that makes this work possible.

"This will be a way we can get bigger plants by using what's available to us. Could we grow more by using less? Some of the old ideas are the best."

By Stuart Sommerville, Local Democracy Reporter