

Emerging technologies meet at Nexus conference; Some of the innovative concepts include a self-drying grain box and gene-edited vegetable seeds

Ontario Farmer

Tue Aug 6 2019

Page: A30

Section: News

Byline: Ian Cumming

Source: Ontario Farmer

DeKalb, Illinois -Two emerging technologies: gene editing vegetable seeds to achieve a longer shelf life and larger produce and building a self-drying box to store and ship grain, were presented side by side at the Ag Tech Nexus Conference.

The event was organized by Global Ag Investing.

Dr Jerry Feitelson, CEO of Agribody Technologies in San Diego, a company he co-founded, described how a two-gene switch in seeds, for which he has obtained 15 patents for seven different crops, has resulted in far longer shelf life for greenhouse vegetables.

Tomatoes grown from his edited seeds are staying fresh and edible for six weeks on the grocery shelf, as compared to two weeks for normal tomatoes, said Feitelson.

Other vegetables he presented were at a similar stage of on shelf freshness at two weeks grown from his seeds while normal varieties were at three days.

He has also demonstrated a 25 per cent increase in the size of the vegetables, he said.

The overall societal benefit will be less food wastage, said Feitelson.

He noted that he is achieving the same yield increase, combined with a far longer shelf life as GMOs, "without the controversy surrounding it."

Having thus far signed deals with nine seed companies, his company "is one-stop shopping" for those in the seed business, said Feitelson. NEARBY, DENNIS Pap, founder of Nexyst 360 in Minnesota, has constructed a mobile grain box, placed and filled out in the field, which can hold 32 short tons, with a false floor which can facilitate as-needed drying.

The atmosphere inside the box gene is monitored by a controller, he said.

This box, with the grain shrinking from the drying, is then be topped up with other dried grain from this field. It's then sealed and shipped directly to the customer anywhere in the world, said Pap.

By eliminating grain trucks, elevators, driers and grain bins, there is “a 35 per cent reduction in capital costs”, said Pap. Plus a farm to buyer connection is guaranteed, which is problematic through the existing bulk system, he said.

These boxes are already in operation, with Pap's main customer farming 26,000 acres, "where we weigh everything. Our shrink on the farm is 1.5 to two per cent," he said.

He noted that the shrinkage loss through the regular supply chain is five to six per cent.

The boxes can also be delivered anytime, anywhere in the world and are not restricted with the “just in time supply chain” whether delivering farm inputs or moving bulk grain to market, said Pap.

"We have customers in Japan and China who have a direct supply chain with the American farmer," he said.

They are capable of treating the product, while in the box, with nitrogen to prevent mould, said Pap. "We can ensure protein and oil levels, or test weight to the end buyer," he said.

“We test it, seal it, and keep it at high quality. We're fast, plus we keep CO2 out of the marketplace.”