New Overpressured Greenhouse to protect young citrus plants

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It's orange and grows in a greenhouse... what is it? An orange bell pepper, you say? Well, what about oranges? That's exactly what they're doing at WN Citrus in California. The citrus grower is currently building a brand new greenhouse, which they'll use for both propagation and production. Zac Green, General Manager at the company, tells us more.

Building in progress!

Pest pressure
The main reason for building a new greenhouse is the presence of Asian citrus psyllid (ACP) in California. Because of this, all citrus nurseries must grow in USDA-approved ACP free structures. A nice bonus of the greenhouse is that it adds 95,000-100,000 trees to the grower's production capabilities.

The greenhouse will be used for propagation as well as production, Zac explains. "We start from seed, germinate, transplant into seed trays that is all done in a separate seed house. We then transplant into the final pot which is given to the grower."

42,000 square feet of smart technology
No stranger to growing indoors, WN Citrus already has 250,000 square feet of greenhouses. The new greenhouse will be bigger than the ones they have now, however. At 42,300 sq.ft., the new build "will be taller and have smarter growing technology to keep our citrus trees in the sweet spot when it comes to temperature, humidity, CO2 and oxygen levels", Zac tells us.
"This will be a Positive Pressure Greenhouse," he says. Put simply and thanks to the over pressure, this means there will be no opportunity for ACP to enter the greenhouse. "We've also seen a big difference in the positive air movement on most of our citrus varieties. Simply put: Our trees grow better with positive pressure. This house will have minimal shadows as well as some cool tech to assist with keeping temperatures consistent throughout our greenhouse."

Quite a difference. Left is the greenhouse being built, on the right side the tubes are installed creating the over pressure. Remarkable is the position of the tubes, providing a climate suited for the citrus farm.

'Commitment to customers'
The biggest challenges in getting everything up and running were "getting the correct permits and permissions from the county to begin construction", Zac says. "It’s a long process, but we’ve worked hand in hand with the county to make sure it is permitted and built correctly and in a timely manner."
Helping them out with the construction was AgraTech. "We chose them for two simple reasons: customer service and innovation. WN Citrus and AgraTech’s goals are similar. We both pride ourselves on innovation, detail, and commitment to our customers. AgraTech is always listening, learning and delivering."

Other companies that worked on the build were Argus, JAIN, and Exeter Irrigation.

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