



A Young Semi Dry
Cabernet
Sauvignon
Reserve
Napa County

Smooth 
Smooth 
Smooth 
Smooth 

נרצה

*The perfect choice
for the Arba Koisos*



From Israel to Ecuador, Growers Use Advanced Techniques to Keep Bugs Out

- By: Moshe Holender



Hi Tech Veggies

Vegetables and greens are an important part of Pesach tradition, and take a prominent role at the Seder. In this month's special food section, Zman explores the wild world of insect infestation, and how to have your broccoli and eat it too!

A fresh, well-prepared salad, its vivid hues of green, purple and red glistening under a light drizzle of oil and vinegar, can be a healthy and delicious addition to your dinner plate. However, lurking under the curly leaves and richly-textured

florets of this delectable dish may be unwanted cling-ons that pose a mortal spiritual danger to the diner.

Over one million species of insects inhabit our Earth, with thousands of representatives in every conceivable environment. Though

different bugs started out in different regions, the globalization of world trade and travel has brought in its wake the globalization of insect species as well.

Every religious Jew is familiar with the problem: All vegetables are kosher; all vegetable-eating insects are not (leaving locusts out of the discussion). And those bugs living in your spinach and broccoli are notoriously stubborn tenants. In modern times, veggie-infesting insects travel the world, posing a potential *kashrus* threat in every growing region.

Checking vegetables for bugs is hard. They cannot be completely removed from many types of greens, if present. The obvious solution is to keep them out in the first place, but overuse of pesticides can potentially reduce food quality and be dangerous or illegal.

This was a thorny problem waiting for a daring solution. And someone found it.

To get a firsthand look at the issue, we visited Chasalat – Alei Katif's facilities in Shaar Hanegev-Sderot and met with Chasalat CEO Eliezer Barat, as well as Arik, an expert agronomist.

It all started with the dream of one Israeli insect expert, and it has grown into a worldwide success. Shimon Biton, an observant Jew employed by Israel's Ministry of Agriculture, realized that by growing vegetables in a carefully controlled greenhouse, the presence of insects in the vegetables could be eliminated. Realizing the enormous benefits this technology could potentially have for the kosher consumer, he approached several farmers in Gush Katif, a region at the southwestern corner of the Gaza Strip, with his idea.

Originally, Katif farmers thought the idea was merely a pipe dream. "Bugs love vegetables, and vegetables have always had bugs," explained Alei Katif's CEO, Eliezer Barat, to **Zman**. "We thought it was a joke."

Despite his original skepticism, Barat agreed to seal a few greenhouses with nylon sheeting and grow a lettuce crop. To his surprise, he got a clean crop.

The methods for growing insect-free vegetables in greenhouses were honed by the residents of Gush Katif, with the guidance and assistance of the Institute for Torah and the Land of Israel, an organization headed by Rabbi Yigal Kamenetsky that addresses a wide range of issues involved in *mitzvos ha-teluyos ba'aretz* – Torah laws which apply specifically to produce grown in the land of Israel. Competition grew, but by 2005, the time of the infamous expulsion of the Jews from Gush Katif, the Alei Katif company was still producing 50 percent of the world's kosher, insect-free vegetables.

Expulsion and Rebirth

On August 16, 2005, Israeli tanks rolled into the Gaza Strip, but not to fight terrorists. Now they were carrying out Ariel Sharon's orders to "disengage" from Gaza, which meant the forcible removal of all Jewish citizens there. Residents of the 21 villages in Gush Katif were given time to evacuate, but many refused. Some had to be dragged from their homes in tears. IDF bulldozers followed the evacuation forces, plowing through former homes and businesses, turning them to rubble.

Originally, the greenhouses that supplied most of the insect-free lettuce to *klal Yisrael* were slated for destruction as well, until an international body raised \$14 million to buy them for the Palestinians, hundreds of whom had jobs in the Jewish farms that they would have otherwise lost. On the eve of the expulsion, some of the farmers who had not been paid yet torched their own greenhouses. Several hundred more greenhouses were destroyed as a result of looting after the Palestinians regained control over the area. A few thousand were left for the Palestinians – but none for the displaced Jewish refugees.

Despite the personal tragedies of the expelled Jewish farmers, they immediately began to rebuild their businesses in Shaar Hanegev-Sderot, just across the Israel-Gaza border, using the same advanced technology

used in the greenhouses they were forced to abandon in Gaza.

Gaza Techniques in Ecuador

Israel is renowned for its advanced agricultural techniques. The innovative methods that have been developed in Israel resulted from a combination of necessity, due to the harsh desert climate in much of the country, and the Jewish spirit of ingenuity and entrepreneurship. Advanced Israeli technologies, like the Netafim company's highly accurate drip-irrigation system, are used around the world.

The particular interest in using sophisticated methods to grow 100% insect-free produce is understandably limited to areas catering to the kosher consumer. Perhaps surprisingly, then, one may find quite a few hermetically sealed, bug-free greenhouses in the small South American nation of Ecuador. This is despite its tiny Jewish population, estimated at around 600. But one thing Ecuador does really well is to grow broccoli, and that interests Jews the world over.

In fact, much of the frozen broccoli in your local kosher supermarket was cultivated high in the Andes mountains amid vast fields of broccoli, a short drive from Ecuador's capital of Quito. Eden Frozen Foods, now known as B'Gan, produces all its frozen broccoli from a special greenhouse-enclosed Ecuadorian broccoli farm. In order to get a fuller sense of the techniques involved, and how they ended up being exported from Israel to Ecuador, **Zman** decided to interview one of the agronomists (agricultural specialists) involved, as well as various people involved in Eden/B'Gan's production.

Farming the Desert

Agriculture is an essential component of the Israeli economy and society, and Israelis are passionate about the land's success. This tradition was inherited from the Jewish settlers of "New Yishuv," who, unlike the land's Arab inhabitants, actively drained

swamps and irrigated deserts to establish farming communities.

Great Britain's "Interim Report on the Civil Administration of Palestine" to the League of Nations in 1921 testifies:

After the persecutions in Russia forty years ago, the movement of the Jews to Palestine assumed larger proportions. Jewish agricultural colonies were founded. They developed the culture of oranges and gave importance to the Jaffa orange trade. They cultivated the vine, and manufactured and exported wine. They drained swamps. They planted eucalyptus trees. They practiced, with modern methods, all the processes of agriculture. There are at the present time 64 of these settlements, large and small, with a



Yeruchim Bertram (left), son of S. Bertram's CEO, speaking to Eliezer Barat, CEO of Chasalat (center). **Zman** visited Chasalat's offices in Shaar Hanegev-Sderot, Israel.

population of some 15,000. Every traveler in Palestine who visits them is impressed by the contrast between these pleasant villages, with the beautiful stretches of prosperous cultivation about them, and the primitive conditions of life and work by which they are surrounded.

More than half of Israel's land area is covered by desert. The Jews' drive to bring forth the land's fruits led to the formation of innovative and effective techniques for irrigating and fertilizing the desert soil. The science of agronomy (the study and development of technology used in plant/crop production) made great advances in Israel,