

Peru and Central America

By Robi Auscher

It was worth working in Peru. It offered the opportunity of visiting one of the world's awesome sites, the divine Machu Picchu. The flights from Lima, the capital located on the sea, depart for Cusco only in the clear morning hours. Later in the day, the skies turn hazy and apparently make the anyway hard maneuvering between the canyons even harder on the pilots. Cusco is located at an altitude of 3400 m while, Machu Picchu is lower at 2400 m. The sudden transition from sea level to Cusco is heavy on young and elder as well. Thus, people are taken first to their hotels to rest, take it easy and sip coca tea which is an old natural remedy for altitude sickness. Sightseeing is scheduled only for the afternoon, after some physiological adjustment and plenty of warnings. Have joined a guided tour which was broken every time a young girl fainted and flattened out suddenly on the ground. I don't know whom to blame, the high altitude or the coca tea, but I spent sleepless nights while at Cusco. Usually, high mountains served a shelter to the Inca and other indigenous groups who found refuge there from the invasion of the aggressive Spanish conquistadors. Not in this case. They reached Cusco but didn't discover the lower-lying, jungle-covered Machu Picchu. Hard to imagine the way the Inca built their huge constructions. They carried irregularly cut rocks of hundreds of tons without being familiar with the wheel. The rocks were put together in haphazard shapes to provide flexible motion and defense against the frequent earthquakes haunting the area. The Spaniards built their monasteries and churches on top of the solid Inca fundamentals and used their stones. Both in Lima and Cusco you can visit the monasteries which served the brutal conversion of the pagan indigenous to Catholicism. Although fervid churchgoers nowadays, they still preserve, mainly in the rural areas, relics of their ancient polytheism. Like in many other old Latin American cities, walking through Cusco's old town jettisons you into the scene of a medieval Spanish colony.

To reach the Machu Picchu discovered and cleared from the jungle by American archeologist Hiram Bingham in 1911 with the help of local peasants, you board the train at Cusco. Instead of swiveling around the mountains, the train zig zags, moving alternately up- and downhill. After a few zig zags you lose orientation and don't feel any longer whether you climb or descend. You reach Aguas Calientes and board the bus which takes you to the ancient summer retreat of Inca leaders. You start walking up from the bus stop without

seeing anything of Machu Picchu's magnificent view. More than often the clouds sit low over the site-surrounding peaks. You creep closer with the hype of a poker player who reveals very slow his cards to augment the rush of adrenaline. Out of the sudden you reach the threshold beyond which your eyes fall on the settlement built of stones slightly camouflaged by the identical color of surrounding rocks and the threateningly rising lumps of beleaguering peaks. It's breathtaking, you're struck by the scenery's indisputable divinity. The village is divided in two: the housing of laborers, the crop producing terraces, the warehouses, the sophisticated drainage and watering systems and on the other side the ritual parts.



Cusco, Inca structures.



Training course in Piura, Peru.



Machu Picchu.

The latter display Inca's affection for astronomy and worship of the sun and its seasonal phenomena: the June and December solstice, the March and

September equinox. You struggle with the ups and downs of the innumerable stone steps to peek into the houses and rest at the little shrines and platforms dedicated to the observation of the solar processes.

After leaving Machu Picchu, full of high-spirited delight, you board again the bus for its winding descend to Aguas Calientes. Little boys of 10 or so gather around the bus. They come down running and cut straight the curves. They scream at each curve when they reach the road always ahead of the bus. They're there at the bus's each turn and you wonder about the easiness with which they get ahead of you to scream, whistle and wave enthusiastically. You get to know their smiling faces and little flowing legs. The passengers get excited about the chase and shout back in joy. At the end of the meandering ride, the little boys await their well-deserved tips and claps for a lovesome show. Back to same zigzagging train and to Cusco.

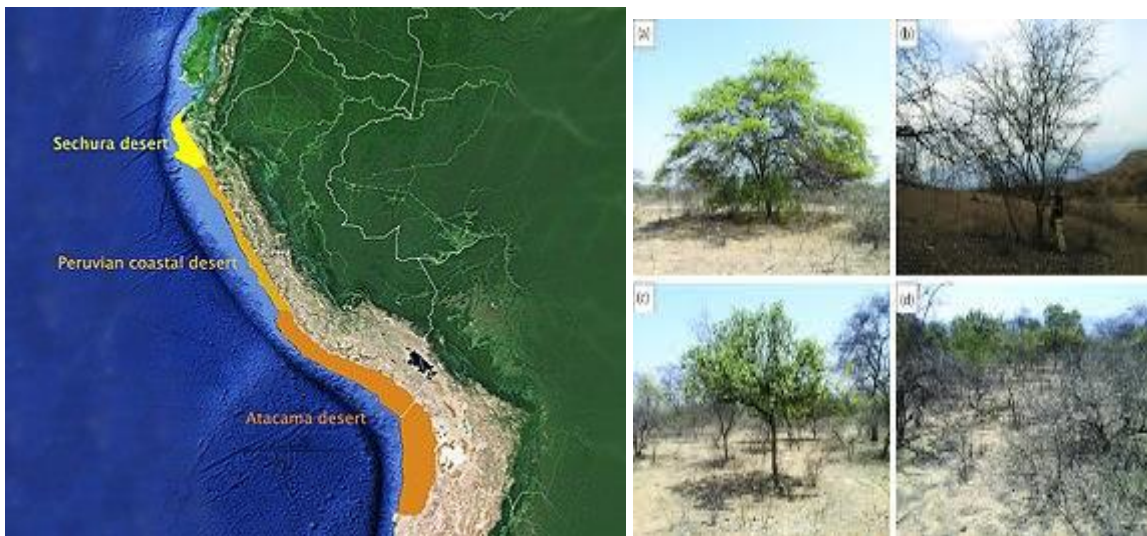
Our two-week long training course in plant protection was carried out in Piura, a desert-like region in the north-eastern part of Peru, next to the border with Ecuador. The idea being to accommodate students from Ecuador too, as a sign of pacifism in light of the territorial disputes between the two countries which erupted again in 1981 and one year before the course, in 1998.

My mate as trainer was Zvi Herzog, from my department in the Extension Service. Zvi had good command of Spanish and was even more familiar than me with the technical terms of plant protection. We tried to promote both the theory and practice of Integrated Pest Management (IPM). We lectured both in the morning and afternoon hours and tried to go out to the fields as much as possible to demonstrate pest scouting and IPM techniques. Zvi focused on fruit crops and I, on the vegetables.

Every morning a young secretary would register the arriving trainees. She seemed always completely composed. One morning, after the casual "Buenos dias, como estas? I see her in bad mood. Just for small talk, utterly uninspired, I ask her what happened to you, did you quarrel with your boyfriend last night? She shed right away tears of deep sadness. Telling that her boyfriend died a few months ago leaving her with their baby. The moral of the story, steer clear of the personal while engaging in small talk. You can never know if you don't stumble on a soft spot.

Piura is located near the large Sechura desert. In the last decades, the area is undergoing accelerated agricultural development based on drip irrigation. We

were glad to see the deep involvement of Israeli firms supplying irrigation equipment, such as pumps, filtering devices and drip systems. Joint ventures of local and American investors turn the desert into flourishing mango groves. The farms are very large and professionally self-sufficient, endowed with large nurseries, wind breaks, pest scouting, irrigation and fertilization, sorting and packing. One of the best surviving trees in the desert is the drought and salt tolerant Algarrobo or the well-known white carob tree an all-around needs provider -- shade, sweet fruits, timber, pollination, windbreaks, forage for livestock. The seeds are ground into flour and a popular local booze is fermented of the fruits (seedpods).



Deserts of Peru

Algarrobo (white carob tree)

Being on a government assignment, we were in touch with our embassy in Lima. Have been asked to give an interview on our activity and we met a local journalist. We described our training activity, its scope and objectives, the way we were received, etc. The interviewer's last name was Santa Cruz, or Holy Cross. He told us that he comes from an Andean village where his family lived for centuries. He came out of the woodwork, revealing his Jewish roots and of many others in the community. He converted and works now closely with the embassy and active in the capital city's Jewish life. Lima's center and the beach are captivating. The buildings carry a dignified Spanish style dating back to Francisco Pizarro's conquest five centuries ago, ornated by the Main Square, Presidential Palace, the Cathedral and plenty of churches. Barbed wire and video surveillance are ubiquitous on the fences of the villas or mid-town houses.

Another mission on behalf of the Ministry of Foreign Affairs was carried out in the **Dominican Republic** in 2001. We landed with my colleague, Yoram

Melamed, in Santo Domingo and were taken to a fascinating sightseeing tour of the old town by our local counterpart. In 1492, Columbus and his crew set sail from Spain in three ships. They made landfall, not in the East Indies, as Columbus assumed, but on one of the Bahamian islands, likely San Salvador. In 1493, leaving several dozen men behind in a makeshift settlement on Hispaniola (present-day Haiti and the Dominican Republic), he left for Spain. Columbus's house could be seen in Santo Domingo's old town. The training course took place in Santiago de los Caballeros, the second largest city of the country. We were lodged in the Camp David Ranch, a guesthouse outside the town. The ground floor accommodated a collection of Dictator Trujillo's vintage automobiles. Quite a scenery of old American cars of the 1930s, looking more as luxury yachts rather than overland vehicles. We ran a very smooth and successful training event closely nurtured and watched by our upbeat local counterpart, Porfirio Alvarez, head of the Plant Protection Department.



Trujillo's collection of automobiles at Camp David Ranch, Santiago, Dominican Republic.

On the course's last day we gathered with our trainees in the classroom for the closure ceremony. We waited to no avail and the course management didn't show up. As time passed it was clear that something bad might have happened. Stories were passed from mouth to ear without confirmation. Until we were told that our beloved counterpart was hit by a stroke at night and hospitalized. Our plans for a ceremony hit the wall. We held an abbreviated version, giving out the diplomas, saying but a few hesitant words.



P. Alvarez, Y. Melamed, R. Auscher and a local official.

We still had a few days before seeing ourselves out for Santo Domingo and the airport. According to the plan we were taken by one of the course managers to visit first one of the few places in the world willing to take in Jewish refugees back in 1938. They settled in Sosua, a remote beach town on the northern coast of the Dominican Republic, whose dictator, Rafael Trujillo, had offered German Jews safety for a promise to develop the land. They were supposed to work the land but were mostly unprepared for the challenge. No Jews live there anymore. They left for Santo Domingo or for the US. Next, we spent three days at Punta Cana in one of the Caribbean sea resorts so popular with European winter tourists flown in on non-stop charters. It was a well-deserved rest after being topped off with work for two intensive weeks. All our attention was attracted by now by the beach and the swimming pool, the daily entertainers, the casino and the “all included” drinks.

Next workshop in San Salvador, **El Salvador’s** capital city. My mate in this event, focused on plant protection on vegetable crops, was Omar Zeidan. We had a long common history. Omar was my student at the Mikveh Israel vocational agricultural high school back in the 1960s where I taught plant pathology, moonlighting to supplement my income of junior regional plant protection extension advisor. He comes from a Moslem Arab village in Israel’s triangle. While I acted as regional advisor, Omar was hired in the same area as assistant advisor and gave a hand to an Arab strawberry production specialist. He completed meanwhile his studies at the Faculty of Agriculture and obtained a Master of Science degree in horticulture. Was employed first as regional

vegetable production advisor and been promoted to state extension specialist for tomato production. Being highly successful in this job he was appointed Director of the Vegetables Production Department of the Extension Service. At the same time I have been kicked upstairs to Deputy Director of the Extension Service for Research and Development. After several years, Omar “trailing me”, was appointed to the same position of Deputy Director for R&D. I followed blithely his ascent, proud of his standing and performance as a top notch poised professional. We flew together to San Salvador via Madrid and Mexico City. Omar’s mission was to cover the vegetable production aspects while I was in charge of plant protection. I interpreted his English lecturing into Spanish. It was my turn to invite Alessandro Amadio to El Salvador since UNIDO had no methyl bromide substitution project in this country. He delivered a talk and established contacts with the local actors for further collaboration. We had the chance to visit in- and outdoor vegetable production facilities and demonstrated soil solarization practices in the fields. With Omar we met Israeli Arab vegetable growers who founded greenhouses in the country producing high-quality vegetables for the domestic and the export markets applying Israeli technologies such as drip irrigation and fertilization systems, bumble bees used for pollination, pest monitoring, insect-proof nets, cooling and shading systems, etc. Besides frontal lecturing, have included local presentations in the workshop, field trips, teamwork in small groups and their presentations before the whole audience.





We demonstrate with Omar soil solarization in the field.



A. Amadio, two local counterparts, O. Zeidan, R. Auscher- guiding the trainees.

El Salvador is the smallest country in central America. It is badly affected by climatic changes due to rapid and illegal deforestation, and high rates of criminality. All this leads to massive migration from the country and teetering attempts to reach the US. The development of modern greenhouse

technologies and production of high-standard vegetables on the other hand is a most promising example of tapping local resources, investments and expertise to build-up new industries and opportunities.

The next central American assignments were all on behalf of UNIDO, Vienna. The first visit to the area has been **Panama**. We held there a workshop on the nuts and bolts of methyl bromide substitution. Our team comprised Italian Dr. Alessandro Amadio, newly recruited by UNIDO, and this was the first time we met, and Marta Pizano a US-educated Columbian plant protection and flower crops consultant. The connection via Miami became a hassle since the airport was under a chronic refurbishment spree. Have missed my flight to Panama City and reached the hotel late at night. Alessandro, a seasoned flyer, expected the problem and we got together but the next morning to orchestrate our program. The venue chosen by the local organizers was a nice mountain resort in lovely green surroundings. Marta covered the flower crops, vegetable crops being my charge. Alessandro gave the big picture. His Spanish sounded more Italian than anything else but he immersed himself in the language and mastered it truly in no time. The workshop was a success and we felt very comfortable working as a team. Panama was the starting block for future satisfactory collaborations. A bonus was a foray into Panama's rainforest and the visit of Panama Canal's intricate machinery.

Panama Canal



Have visited **Guatemala** twice. Once in 2002 promoting the methyl bromide substitution effort at both field and administrative levels for UNIDO as executing agency and second in 2005, monitoring the country's progress on

behalf of the Montreal Protocol's evaluation project. Thus, Guatemala City although unsafe, became quite a familiar place. The MB substitution program's coordinator on behalf of the Ministry of Environment Protection was a medical doctor who was trained in Israel and our click was immediate. However, melon growers had the last word in government decisions. The growers owned huge farms, brought in sophisticated cropping technologies to export their produce to the US. As such they possessed heavy political weight and were reluctant to give up on methyl bromide applications which became the kingpin of their seasonal soil treatments. Melon Growers Association, that we visited several times, had much more impact on government's policy than a government unit such as the Ministry for Environment Protection. Basically, they followed the pattern set by California and Florida strawberry growers who opposed MB alternatives, in the belief that they won't fly, and had a heeding ear in the White House. To crack the hard nut, had to build up first an environment of confidence with growers' representatives. Have presented case studies mainly from my own experience back home in Israel. Reviewed in detail our project which was 10 years ahead of theirs since developing countries enjoyed a 10 years grace period. And how did we, as an export-oriented developed country, deal with the headwinds enforced by the international agreements, fully endorsed by both Guatemala and the US. Subsequently, once methyl bromide would be banned in the forthcoming 3 years, namely by 2005 within the US, the latter couldn't accept anymore the importation of methyl bromide treated melons. And since a picture is worth a thousand words, we demonstrated in their own fields melon crop's most promising MB alternatives to cajole their motivation to comply, and change the game.

Got a car and a driver and visited a little medieval Spanish town, Antigua, not too far from Guatemala City. It is frequented by tourists since it is so well-preserved. It was fun walking along the cobble-stone paved streets, ancient houses, the bazars and the nice restaurants. The driver sported his Spanish last name, although he had very few drops of Spanish blood in his ancestry. Indeed, his complexion was very dark. What was important for him was to distinguish himself from his fellow indigenous who carry but local names.



Melon fields up to the horizon, Guatemala.



"Heavy" melon growers, Guatemala.

Costa Rica is similar to Guatemala as far as the main methyl bromide consuming crop is concerned. This country is also exporting melon to the US marketplace. The visit in Costa Rica in 2005 was in the framework of a monitoring mission. The Montreal Protocol's Multilateral Fund initiated a project evaluation effort. Marta Pizano and myself were hired to carry out the evaluation which consisted of the distribution of written questionnaires to more than 60 developing countries and their desk review, and complementary in-depth on-the-spot visits in sample countries.



Antigua, Guatemala

In this context have visited Romania, Costa Rica and Guatemala. In Costa Rica touched base with Marta and with Ansgar Eussner, the chief evaluation officer of the Montreal protocol. Representatives of the executing agencies such as the World Bank, UNIDO, UNDP, UNEP were not present since their activity was also part of our assessment. Ansgar, a German economist confessed that being German, in light of their benighted history, he has scruples whenever meeting an Israeli or someone Jewish. We visited farms, research institutes and administrators and laid out the methodology of our evaluation process. Costa Rica is a beautiful country - clean environment, rich rainforest habitat, mountains, volcanic craters, lakes, waterfalls, hot springs, colorful fauna, natural parks, sandy beaches, neat villages. Unlike the other central American countries that we traveled to: Panama, Honduras, Guatemala and El Salvador which all suffer of tough criminality, Costa Rica was able to subdue it and is even proud of owning no army and enjoying waves of tourists in general and ecotourism, more specifically.

UNIDO, under the leadership of Alessandro Amadio, organized a regional workshop on methyl bromide substitution. The workshop took place at Choluteca, a nice beach resort on the Pacific coast of **Honduras**. First, you have to get into Tegucigalpa, the capital city. Landing there is considered a master challenge for pilots. They have to descend and maneuver between narrow

canyons and land in mid-town on a short runway. For the riders it's a spooky but spectacular view.



Melon field prior to harvest in Costa Rica



Grafting melon on soil-borne pathogens resistant rootstocks, Honduras.

The workshop was an outstanding opportunity to get an update on the MB replacement efforts of the invited countries and to rub shoulders with the actors behind them. The talks and frontal activities were well commixed with field visits to large greenhouse firms based on foreign investment, with their own research and development activities, nurseries, grafting facilities, strict sanitation standards and staff training. After the workshop have wandered around Tegucigalpa. It's placed high and nice, surrounded by hills but the town itself doesn't show any significant difference from the continent's many other towns or capitals.