Iraq

By Magda Verfaillie, Mycelia

Trouble shooting in Iraq

In the desert province of Al Anbar in Iraq, 120 kilometres west of Bagdad, lies the mushroom farm belonging to the Al Khirbit family. A modern complex complete with a spawn laboratory, that hasn't survived the hostilities unscathed. Early this year a delegation from spawn producers Mycelia paid a visit, to help reorganise the existing laboratory and train the staff.

Photos: Magda Verfaillie

After an adventurous journey from Amman we reached the Jordanian-Iraqi border, where we avoided an ominously long hold up using an ingenious combination of audacity and bank notes! Our journey continued for 1000 kilometres across the desert, following the trail of damage left in the wake of war as unending rows of uprooted electricity masts, wrecked vehicles and road blocks.

The settlement of Al Hameedya of the Al Khirbit family seemed to be planted in the middle of nowhere. The modest community comprises a few houses, one of which was totally destroyed by a bomb, a meeting room annex mosque and the extensive complex of buildings housing the mushroom farm.

Fahad Al Khirbit welcomed the Mycelia team in perfect Oxford English. The first in a series of outstanding meals in the guest quarters was desert truffles with rice. The truffles are mycorrhizal edible mushrooms of the Terfeziaceae family which grow in arid climates. The fruit bodies, which grow underground, are unearthed en masse in the early spring and traded in the desert regions of the Middle East. They are also found in dry regions of Hungary and China. The taste cannot be compared to Perigord truffles, but it is a firm mushroom with a pleasant texture and flavour.

'Collateral damage'

In the 1980s Fahad's father, known as a daring pioneer, had the improbable seeming idea of starting up a mushroom farm in the middle of the desert. Al Hameedya was built under supervision of Jan Huys, according to the Dutch model. It is the only Iraqi mushroom growing company and the pride of the family. The growing facility has ten growing rooms (two shelves, four beds high), plus another ten or so for future expansion.

Until the war, yields were good, reaching around 25 kilos per square metre. All the mushrooms were destined for the fresh market and prices were higher than in West Europe. The Americans in Iraq can't miss mushrooms on their pizzas, so a guaranteed market seems assured. But there are no longer any compost producers. Phase I compost was made on a concrete floor covered by a roof, phase II and III in tunnels. However, since the embargo no spare parts can be imported for these high-tech machines, and the war forced the trained Egyptian workers to flee the country. After the compost makers had left, the company could not longer optimally perform, and supplied sub-standard production. At the start of American intervention one of the family residences was bombed, killing 26 family members in the process, including many children and one of the Khirbit brothers.

Smoke above the desert.

For a while now Fahad, the second of the four remaining brothers, has been responsible for the (re)organisation of the family business. Good basis material is essential for a good crop. The first initiative in this case is improving the existing spawn laboratory. Purchasing spawn was considered, but in the current political context importing such vulnerable products is in the hands of 'cowboys', who sense the chance to earn big bucks with so-called risky transport consignments. Mycelia was approached instead.

Building and training

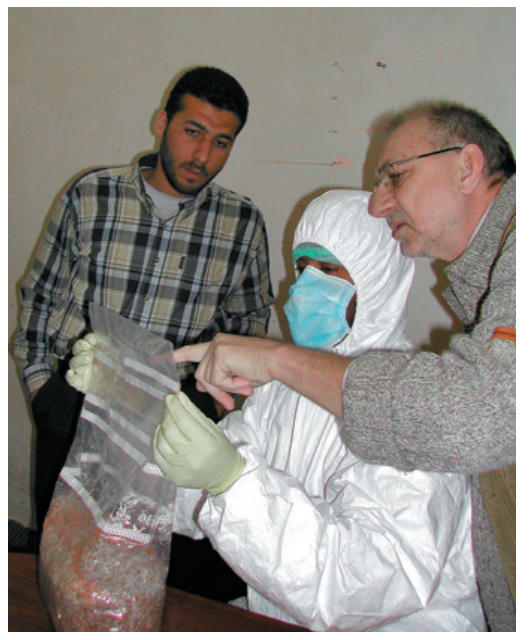
Prior to the trip preparations were made based on the floor plans of the original laboratory. Some of the necessary material, such as HEPA filters, Microsacs and a welding machine were dispatched to Amman

The compound of the Al Khirbit family with the destroyed house (right).

Desert truffles with rice.

Compost yard.

Preparation of spawn substrate; mixing grains with additives.



Spawn inoculation; checking the bag.

before we left. The shipment arrived in Amman without any problems, but the journey through the desert to Al Ramadi formed an almost insurmountable obstacle. A few days before the return journey, the missing pallet materialised - delivered two weeks late for an extortionate price. The family had already tried to find companies in Baghdad able to construct a laminar air flow and over pressure installation. Together we made a critical comparison of the quoted prices and quality guarantees. The Al Khirbit family are such hard working, efficient people that after a week the building was unrecognisable.

Father Al Khirbit regularly popped by, delivered a few critical comments and suggested improvements. Fahad does the day to day running of the mushroom farm, but father Al Khirbit's word is final in all decision-making.

The theory part of the training was intended for the two teachers and the bio-engineer. Fahad and brother Nawaf, translated.

The practical lessons were limited by circumstance to simulations, as there was no production in a functioning sterile environment. Despite the awkward communication, hand and feet work and a healthy sense of humour meant the demonstrations were lessons learnt with a smile. But without forgetting just how serious the training was - at the close of each session the students were tested for competence. When they all seemed to have digested the subject matter the lessons were rounded off and the certificates awarded to the students.

Fahad translates for the students.

Nawaf helps Jos van de Ponseele of the Mycelia team (left) filling the autoclave basket.

Construction of a new laboratory door.

Uncertain future

The Iraqis paid careful attention to the security of the delegation. During and after work, the group stayed in the gilded cage of the compound. Any step beyond was forbidden territory. The Belgians never set a foot outside unless under Fahad's watchful eye, not to e-mail in Al Ramadi, nor to order material in Bagdad. In spite of the disappointment, Fahad didn't want to take any chances entertaining them in a local tea house or restaurant. And the field trip to hunt for desert truffles had to be cancelled as well. The renovated laboratory was not yet up and running when Mycelia left, but the changes had been carried out perfectly, and the freshly qualified team were eagerly waiting to start producing mycelium. The intention is to produce around 250 kilos of spawn per week, enough for their own use. But equally important is that we were given the chance to get acquainted with a marvellous family with an Islamic background. Intense cooperation and lively discussions led to a degree of mutual respect and understanding, that transcends any cultural differences.