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## FEATURE STORY

### BRACE YOURSELVES, AFIR IS COMING... AND WE STARTED PLANTING

6 months have passed since we started working on the establishment of the **AFIR Beekeeping and Nature Discovery Center** in **Saidoun**. With support from **SLush Fund, Région Paca** (Provence-Alpes-Côte d'Azur) and **APIFLORDEV**, we have launched the renovation of the old stone house that will host the center and held workshops on beekeeping and processing of beehive products. Meanwhile, we are also working on educational material, including the Fact Sheets you can see on our page . And that's only the beginning...

#### HERE COME THE AROMATIC PLANTS- - - - -

The last milestone on our 2016 calendar was planting 2 types of aromatic herbs, lavender and rosemary to establish a source of raw material for AFIR products. We chose these 2 based on many factors: their drought tolerance (once established), low maintenance, good yield of essential oil, pollinator friendliness and suitability for our climate, as well as our familiarity with them.

Initially, we had planned on collaborating with 2-3 local farmers who would each accept to plant 1 dunum of abandoned land, while we provide seedlings and irrigation pipes, and buy the herbs from them in the future. However this proved to be more complex than we anticipated. We didn't find interested people who have suitable land and/or a functioning water cistern (the plants need irrigation the first 2 years), as the economic incentive wasn't clear to them. Since we had already purchased the 7,000 seedlings and *Rita Khawand's* olive orchard couldn't fit more than a few hundred plants, we started looking for new land to rent. Weeks passed without results and the roots of the seedlings began curling up in the modules, soon the only option we were left with was to put the seedlings in the ground temporarily at close distances (as if in a nursery) while we kept looking for land in which to transplant them next Spring.

We had all but given up when on the morning of November 16, Rita received a call from the former Saidoun municipality president saying that a 2-dunum plot in the middle of the village had just become available. The plot included 3 wide terraces and had already been ploughed. It also has a water cistern dug in. This made it perfect for a pilot project, as people could observe and interact with it. Rita quickly contacted the person responsible for it, and they agreed to collaborate on turning it into a demonstration plot, even an educational garden - the only limit was our imagination (and water).

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**Continued from Page 1**

We had to act quickly: do the design, bring in the compost and seedlings, and install the drip irrigation, all in one week. With the help of Google Map, Rita was able to draw the basemap in a few hours. She didn't get the time to do a proper observation, but she took a lot of pictures and soil samples. She then began laying the planting lines and calculated the number of plants we could fit in: a bit less than 4,000 seedling 50 cm apart in rows 110 cm apart. The plants should grow to a diameter of 60 cm leaving a path of around 50 cm between rows.

On November 20, the SOILS team gathered to put the extra 3,000 seedlings in raised beds. We put in around 1,000 of them, then our friend *Haitham Khawand*, a local agricultural engineer whose father grows oregano (*zaatar*), volunteered to pot the rest and tend to them, which will facilitate their transplanting in the Spring (and might encourage him to start his own nursery).

Rita then laid down the irrigation lines with the help of the irrigation contractor, while organizing the arrival and mixing of compost from **Tanail** (which unfortunately had a lot of impurities).

As standard drip hoses come with holes either 25 cm or 40 cm apart, this made them unsuitable for our purpose. We had to puncture the holes by hand and add individual drippers which can be adjusted to watering needs. It's obviously a more costly and time consuming option but since it's a long term investment we decided to go for it. Since the water has to be pumped from the bottom of an underground cistern we needed a 2-horse pump and water filter (to protect drippers from clogging with sand), which also added to the expenses.

While the irrigation system was being installed, Rita took some time to work more on the layout of the smallest terrace (Terrace C), which she thought would be a nice experimentation plot, especially in terms of reducing weeds and adding more diversity. She brought each pair of planting lines to 60 cm distance (instead of 110 cm), so once the plants reach maturity we'd be able to reach them from one side only. In between rows, the plants will overshadow the weeds. This will leave more space on the edges and in between the pairs to put in a few trees, and maybe some shrubs, making sure not to cast a lot of shadow on the aromatics. The nursery was placed on this same terrace, in the spot where the land's keeper said she'd like to build a small studio in the future, this way she wouldn't have to take out established plants.

The same evening we installed the irrigation hoses, a jackal gnawed through the end of one hose. Based on the advice of neighboring farmers, Rita placed a bucket of water (to provide such nighttime visitors with a more accessible source of water) and improvised the first scarecrow. Later, we got more creative and added tins for our scarecrows to make noise.

After one week of work, the irrigation system was finally in place with a few flaws. We filled part of the cistern from a nearby house and we enlisted the help of 3 locals on November 27 to plant the remaining 4,000 seedlings. Having extensive experience in tobacco growing, the locals did the job in only 4 hours. We turned the pump on, irrigating one terrace at a time. Not knowing how much water the drippers were emitting, we had to measure the height of the water in the cistern to estimate the quantity of water, which had to be at least 1 liter per plant.

Fortunately, the first rains came 3 days after the planting, so we only had to irrigate once. In winter we'll fill the cistern with rainwater from the neighbor's roof, and we'll try to fill unused neighboring cisterns as well. The plants will need watering for the first 2 summers (4-8 liters/plant/month), which is a big challenge for a village with no ground water or spring.

Soon, we'll sow some vetch seeds (*vicia sativa*) in the rows as annual groundcover to help regenerate the soil after years of tobacco plantation, and mow those down early in Spring. As for mulch, we will leave the ground bare in Winter but we're considering experimenting with recycled cardboard rolls (very practical) in Spring. Next Autumn, we might add local materials such as olive leaves, but first we'll see what grows in Spring among the vetch. We might also grow a perennial shade-tolerant groundcover that can also be a crop (such as strawberries or violets), if we establish that it doesn't compete for water a lot. Rosemary and lavender can be very resilient and drought-tolerant once established, provided they are well-cared for in the first 2 years.

We'll also select specimens of local trees (carob, almond, laurel, hawthorn, etc.), shrubs (myrtle) and more aromatics to add for biodiversity and demonstration. Once the garden is established, we can host children and visitors for workshops, and we'll harvest the main crops for distillation and drying. We're so looking forward to seeing bumblebees and honeybees humming over the flowers and we hope if the project is successful it can inspire others around to replicate it!

*Shared by the Editorial Team*





## LET'S FOCUS

### AN ILLUSTRATED GUIDE FOR VEGETABLE MICRO-GARDENS IN REFUGEE CAMPS

Between **June and October 2016** we held trainings on **vegetable micro-gardening** in **6 refugee camps in the Bekaa**, which we wrote about earlier (see [L.E.T.S. Lebanon - Issue 35](#)).

**120 trainees** were able to harvest some vegetables and herbs to supplement their diet, with obvious differences in production weight from one camp to the other. The 2 main factors affecting production were the different dates of planting and water availability. The Baalbek camp for instance had the highest production rate, with some tents getting as much as 23 Kg of eggplants, 16 Kg tomatoes, 25 kg of okra and 5 kg of Armenian cucumber. In other camps, some tents got as little as a few grams per crop, and sometimes a crop failed altogether.

However, as one woman trainee said, the most important harvest was the knowledge they gained: "The best thing we learned from this training is that we can plant food in small spaces... we had lost hope!" This knowledge will hopefully remain with the trainees even when they move. Another woman trainee said: "In Syria I had a 500 m<sup>2</sup> garden, I only grew grapes and roses in it. But now I know I could have done much better than that."

In order to help the trainees retain what they learned and make the information also available to other refugees in Lebanon or elsewhere, we compiled our experience in a manual, **An Illustrated Guide for Vegetable Micro-Gardens in Refugee Camps** - الدليل المصور عن زراعة الخضار في مساحات ضيقة داخل مخيمات النازحين. The guide contains 53 fully illustrated pages in A5 size, designed by the talented *Racelle Ishak*. It shows simple methods to grow vegetables in restricted spaces, specifically inside refugee camps. During the design process, we tested some illustrations with the trainees to make sure they were clear for them, and to get their feedback. We included very little text in **simplified Arabic** so that anyone can understand the content.

The topics discussed in the manual are organized in chronological order according to planting seasons (Spring-Summer or Autumn):

- How to plan the location of micro-gardens in camps
- How to establish micro-gardens using locally available reclaimed materials (pallets, jute bags and various containers).
- Which summer or winter crops to plant for maximum nutritive value
- When to plant
- How to plant crops in small spaces or containers to ensure the highest yield
- How to look after crops (soil care, water management, Integrated Pest Management - IPM)
- How to harvest and preserve seeds

Several factors influenced our choice of methods/techniques. First, the planting dates are specific to the Bekaa area's climate - which is characterized by wide variations in temperature between day and night, with a very dry summer.

We focused on vegetables that are easy to grow in small spaces and containers. While it is theoretically possible for camp residents to plant directly in the soil, the Lebanese government only allows planting in containers or beds. However, this can actually work to refugees' advantage since the existing soil is likely polluted with chemical fertilizers from nearby fields, sewage water, etc.

We also tried to limit our selection of containers to materials that would be readily available for free (such as used food containers) or at a low cost. We only stuck to examples we had previously tried out. One growing method we regret not having tried or mentioned is wicking beds, which are supposed to be very water efficient, but we found them more complex to prepare within the actual context.

The manual will be distributed to the trainees, and is [available on our website](#) for consultation.

Shared by the Editorial Team



For NGOs: To print a copy of the manual for distribution, email us at [contact.soilslebanon@gmail.com](mailto:contact.soilslebanon@gmail.com) to ask for a high-resolution file

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## LET'S SHARE OUR NEWS

### THE LEBANON MOUNTAIN TRAIL ASSOCIATION REPRESENTS AT THE COP22

This November, the **Lebanon Mountain Trail Association (LMTA)** participated in the **Conference of Parties for Climate Change**, part of the **UN Climate Change Conference COP22** in **Morocco**, where they represented **Lebanon**. Along with representatives from **Morocco, India, Chad** and **Ivory Coast**, the LMTA delegation promoted their recent initiatives within a series of interventions and discussions around the different challenges faced in environmental education and sustainability. We stressed the importance of spreading awareness in joint collaborations with local schools and institutions.

LMTA board member *Maya Karkour* and myself, as part of the LMTA education committee, held an interactive workshop titled **"Training, Education and Awareness"** at the Green Zone of the COP22, in the Youth Space provided by the Swiss Agency for Development and Cooperation and co-organized by UNITAR.

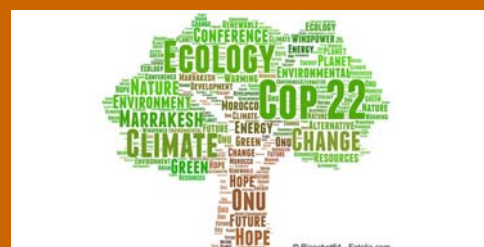
We presented our new ongoing education project for children aged between 8 and 12 years old, implemented with the Swiss Fondation pour le développement durable des régions de montagne (FDDM) as international partner, and the support of the Lebanese Ministry of Education and Higher Education. This project aims at promoting sustainable mountains and their resources through an interactive educational kit that includes a virtual tour of the Lebanon Mountain Trail, accessible online for educators and students.

We also presented the animation movie we produced for our anti-littering campaign **#AnaRa7Balesh** (I will start) integrated in the **Abtal El Bia (Environmental Championship)** program of the LMTA (see below).

Shared by *Stephanie Audi*



Click on the image above to watch the animation on YouTube and share it with your friends



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### UPCOMING EVENTS

#### "ENVIRONMENT AND HUMANKIND" LECTURE



**DECEMBER 12, 2016**  
**6:00 p.m. - 8:00 p.m.**

**USEK, Kaslik**

Lecture on animal and plant treatment for the disabled and the elderly by Dr. Antonio Pizzuti Piccoli

<https://www.facebook.com/events/1811169192485339/>

#### "WHAT CHRISTMAS MEANS TO ME" CONCERT AND DONATIONS CAMPAIGN



**DECEMBER 17, 2016**  
**7:30 p.m. - 9:00 p.m.**

**Stark Creative Space, Kaslik**

Original songs by contemporary Lebanese artists. Donations of clothes and toys for people in need.

Tickets: LBP 20,000

<https://www.facebook.com/events/1553280241354923/>

#### "BIKE FOR CHARITY" BIKE RIDE AND FUNDRAISING EVENT



**DECEMBER 22, 2016**  
**7:00 p.m. - 10:00 p.m.**

**BIEL, Beirut**

Annual Christmas bike ride and fundraiser for the "Kids First" association (treatment of cancer in children).

Tickets: \$10 per person

[https://www.facebook.com/events/539425216247142/?active\\_tab=about](https://www.facebook.com/events/539425216247142/?active_tab=about)

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**SAVE PAPER – Do you really need to print this newsletter?**

**L.E.T.S. Lebanon**

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## LET'S SHARE OUR NEWS

### KILIMS FROM ARSAL WITH LOVE... AND CENTURIES OF TRADITION

**Arsal** is one of the largest border towns in the Bekaa valley, with a rich heritage and fascinating crafts. The town is known for its history dating back several millennia (its name signifies "The throne of God" in Aramaic) and agriculture, notably cherry orchards. Arsal is particularly reputed for its **Kilim rugs**, a type of tapestry-woven carpet that is produced in Turkey, North Africa, the Balkans, the Caucasus, Iran, Afghanistan, Pakistan, Central Asia and China.

However, in recent years Arsal's position near the Syrian border has exposed it to spillovers from the conflict there. This has put the town under security and economic duress. Many of the men can't access their fields to harvest them anymore, and families are losing their livelihood.

To remedy the situation, **USAID's Minority Serving Institution (MSI) program** established workshops to teach more women how to weave Kilim rugs as a way to supplement their income. Over a period of around 3 months, **11 women** learned the craft under the supervision of *Halima Houjeiry*, a local woman who started weaving Kilims at the age of 6.

Arsal Kilims are carefully woven from cotton and wool with looms and beating combs using techniques that women learned from their mothers and grandmothers. The Kilims traditionally come in geometrical pattern that the town is known for. Today, the women of Arsal have reinvented this craft and created a unique line of products, from carpets to coasters, placemats, purses, and other fashion and home decor items, combining both traditional elements and modern designs. They are also happy to execute customized designs for clients upon request.

This is where *Farah Jaroudi* and I come in. Since January 2016, we have been working on the project as marketing trainers. Our job is to help the women of Arsal come up with a bigger product range and variety, and market their crafts in boutiques around Beirut. Proceeds from the sale of these products go directly to Halima who then pays the women according to how many items each one sold. As the project nears its end, a business plan was created for these women's work to become self-sustainable.

The **Arsal Crafts** project gives women a sense of purpose and helps them feel like they are an active part of society instead of sitting at home all day and feeling powerless. Even if they do not make as much money as they'd like to in the beginning, they feel like they are being productive. Projects like these are the reason why we left our desk jobs; to use our professional skills to help people in need.

Unfortunately, our contract with MSI will end this month. We are hoping that we will be able to help other women with this program in North Lebanon if our contract is renewed.

Meanwhile, Farah and I are working on a different social project with L'Artisan du Liban, designing products that people in Akkar, Tripoli, or South Lebanon can execute to sell and generate income.

The Arsal Crafts line of products is available in Beirut at the following boutiques: L'Artisan du Liban, Smac by Sandra Macaron, Atelier Nanou by Nanou Mouawad, Oumnia by Nivine Maktabi, Vide Posh by Pascale Sloukgi.

Check out our Facebook page <https://www.facebook.com/arsalcrafts/> and tell your friends about it. Your support can directly improve the lives of artisans and their families in disadvantaged communities.

Shared by Berna Daou



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## PHOTO OF THE MONTH

You sent us your submissions and you voted for your favorites. Here it is, the PHOTO OF THE MONTH:  
To send us your photos, email us on [contact.soilslebanon@gmail.com](mailto:contact.soilslebanon@gmail.com)



*European robin overlooking SOILS' newly planted lavender and rosemary fields in Saidoun, Jezzine - South Lebanon*  
Photo by Alexis Baghdadi

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## GET IN TOUCH, GET INVOLVED


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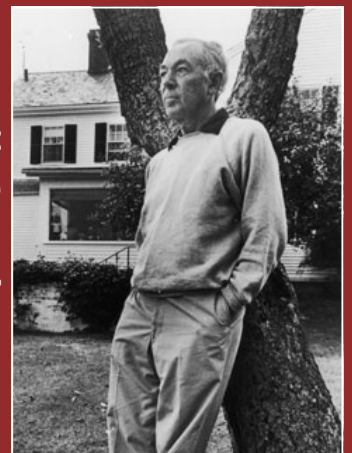
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Cover photo by Adel Nehmeh

## A THOUGHT TO SHARE ...

**"I would feel more optimistic about a bright future for man if he spent less time proving that he can outwit Nature and more time tasting her sweetness and respecting her seniority."**



**–Elwyn Brooks (E. B.) White (1899 – 1985)**

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