



**JSDCBD**

**Jordanian Society for Desertification  
Control & Badia Development**



**PROGRESS REPORT ON JSDCBD DEMONSTRATION SITE WITH  
WATERBOXX® PLANT COCOONS  
APPROX. 12 MONTHS SINCE PLANTING  
4 NOVEMBER 2017**

This report documents the results at the demonstration site of the Jordanian Society for Desertification Control & Badia Development of planting with the Groasis Waterboxx® plant cocoon, approximately 1 year after planting.

**Key project characteristics:**

- Date of plantation: 29/11/2016, date of inspection: 04/11/2017
- Number of Waterboxx® in this project: 188
- Survival rate of trees: 74%
- Varieties planted: mainly forest trees (Eucalyptus, Cypressus, Tamarix, Oak, Lagerstroemia and Peruvian pepper (Schinus molle))
- Quantity of water given per Waterboxx®: 56 ltr.
- Water refill: one refill in July 2017, less than 10 ltr. per Waterboxx®

**Project summary:**

In November 2016, 188 Waterboxxes® were planted on a JSDCBD site in Jordan with six different varieties of trees. The demonstration area is a rocky, shallow soil with rainfall of less than 150mm per annum. It is located on top of a mountain and the site is exposed to very strong winds. Some of the seedlings were infested by scale insects, which caused the death of the plants before they started blooming. One month after planting, the seedlings were exposed to a wave of frost and strong winds (-5 degrees Celsius), which caused some damage to the seedlings. The summer of 2017 was the hottest season in Jordan since 30 years with temperatures in excess of 45 degrees Celsius for over a month. In spite of all of this, 74% of the trees survived the first year – an excellent result.

**Comments:**

I think with all the aforementioned limitations, harsh weather and the minimum amount of water given to the trees, the results are very good and more than I was expecting. With good seedlings (that are not infected with scale insects) and suitable species, I believe that the success rate will be more than 95 % next year.

Nabeeh Layan Al-kayed  
Amman, Jordan - November 5, 2017



### **Evaluation for the plantation using the Waterboxx®:**

- Total No. of Waterboxx®: 188
- Quantity of water given per Waterboxx®: 56 litres
- Water refill: one refill in July 2017 (less than 10 litre per Waterboxx®)
- Number of successful plants: 139 (74%)
- Number of dead plants : 44 (23%)
- Number of damaged Waterboxx® by animals or people: 5 (3%)
- The seedling from the nurseries were infected by scales insects, mainly the Eucalyptus, and this has an impact on plant vitality and its success rate.
- One month after the plantation, the seedlings were exposed to a wave of frost and strong winds (-5 °C), and this also caused some damage to the seedlings, mainly the pepper (Schinus molle) and the Lagerstroemia.
- Some plants died after the frost season, while others succeeded in overcoming the frostbite and produced new shoots (the pepper and the Lagerstromia). The protection of the Waterboxx® helped ensure that the roots were in good condition.
- The summer of 2017 was the hottest season in Jordan since 30 years. The temperature reached up to 45°C and lasted for more than 1 month.
- When removing some of the Waterboxxes®, moisture was noticed in the upper layer of the soil.
- The main root was clear and extended deep in the soil (roots length reached more than 50-60 cm).
- The most successful plants were respectively:
  1. Cypress
  2. Tamarix
  3. Eucalyptus
  4. Oak
  5. Peppers
  6. The least success were the trees of Lagerstroemia.

### **Next step:**

During November 2017, the Jordanian Society for Desertification Control & Badia Development will remove the Waterboxxes®, clean them, replace the wicks and replant the Waterboxxes® with new seedlings of the varieties that performed best.



## For further information and availability:



**Desert Tulip** is the distributor of the Groasis Technology in Jordan. Our experts provide mentoring/coaching and technical assistance to strategic partners who want to use the Groasis Ecological Water Saving Technology. Desert Tulip plays a key role in facilitating communication between strategic partners implementing the Groasis Technology and Groasis B.V. for exposure on the latest trends using the Groasis Technology, ways to effectively implement the Technology and high level exposure of Jordanian projects on the regional and international levels. For further information on the Groasis Technology in Jordan, you can contact Mr. Michael Schuring, Technical Instructor on Groasis and General Manager of Desert Tulip, on his mobile number 00962772461636 or email at [mschuring@deserttulip-groasis.com](mailto:mschuring@deserttulip-groasis.com)

## للمزيد من المعلومات حول تكنولوجيا جرويسس:

شركة تيولب الصحراء لتجارة المستلزمات الزراعية هي الموزع الحصري لتكنولوجيا الصناديق المائية (جرويسيس) في الأردن. ويقدم خبراء تيولب الصحراء الدعم الفني والارشاد للشركاء الاستراتيجيين الذين ينفذون مشاريع زراعية باستخدام التكنولوجيا في الأردن. وتعمل تيولب الصحراء كحلقة وصل بين الشركاء وجرويسس في هولندا بهدف تعزيز الاتصال والتواصل حول أهم الآليات الفعالة وانجازات تنفيذ التكنولوجيا على المستوى الدولي، اضافة الى توفير منصة لتأطير المشاريع التي يتم تنفيذها في الأردن باستخدام التكنولوجيا على المستوى الاقليمي والدولي. للمزيد من المعلومات، يمكن الاتصال مع السيد مايكل شخورن، مدير عام تيولب الصحراء ومدرب في مجال استخدام تكنولوجيا جرويسس على هاتف رقم 00962772461636 و/أو البريد الالكتروني [mschuring@deserttulip-groasis.com](mailto:mschuring@deserttulip-groasis.com)



## ABOUT THE JORDANIAN SOCIETY FOR DESERTIFICATION CONTROL & BADIA DEVELOPMENT. (JSDCBD)

Society's objectives:

1. Put an end for desertification resulted from retrogression of natural plant cover, and protect agricultural land from the danger of desertification and its causes.
2. Study reasons leading for the desertification, acknowledge the degree of desertification effects in Jordan, and determine the suitable scientific solution to achieve the objectives of JSDCBD as mentioned in item.
3. Protect agricultural land from the danger of desertification, search for the best suitable solution towards the ideal usage of surface water, and put an end for retrogression of natural plant cover.
4. Develop the production ability of grazing through proliferation and protection of grazing plants, through the availability of forested nurseries in cooperation with the Gov't and the private sector.
5. Draw a national plan to employ various national efforts, i.e. pupil's students, and Jordanian forces, aims to plant the protected lands of Jordan from desertification.
6. Increase public awareness of the danger of incorrect practices, which accelerate the desertification, through available media, and various levels of school curriculums to bring the



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attention of students towards the importance of protecting environment by protecting the trees.

7. Protect wild life including plants and animals from the danger of desertification and maintaining the environmental balance.
8. Participation in the improvement and Development of local environment of the Jordanian Badia, by developing grazing areas and increasing the animal's wealth.
9. Using treated waste water in planting trees and desertification control .
10. Utilizing from closed dumps areas by planting trees and plants, and make them suitable for public parks and gardens.
11. Issue leaflets, studies, researchers, hold meetings and conferences about the control of desertification.
12. Cooperate with local, regional, and international institutions specialized in environment protection, to achieve JSDCBD objectives and goals.
13. JSDCBD has no political objectives.

More information about JSDCBD is available on: [www.jordandesert.org.jo](http://www.jordandesert.org.jo)

## **ABOUT GROASIS**

Groasis is the inventor of the Groasis Ecological Water Saving Technology and offers both the Growboxx® and Waterboxx® plant cocoon as a direct response to the challenges of land degradation and increased need for food and water. Groasis focuses on Renewing Soil, Restoring Land, and Reshaping the World through our unique Triple Ninety Benefit versus traditional planting methods: 90% lower cost, 90% less water and 90% survival rate. Groasis' clever Groasis Ecological Water Saving Technology allows people living in the most difficult conditions to produce nutritious food and restore degraded land. The low-cost, scalable solution can restore livelihoods and dignity in the midst of despair and enable severely marginalized people to support their household food and nutrition needs in a sustainable manner.

The Groasis Growboxx® enables the planting of productive trees (such as mangos) in combination with near term cash crops (such as vegetables), offering a viable business model and sustainable way of life for 500mn small-scale farmers and one naturally suited to micro-credit financing models. The Groasis Ecological Water Saving Technology has been successfully implemented in 42 countries around the world with more than 200.000 trees having been planted.

Groasis features as one of the sustainable business opportunities chosen by the UN Global Compact for inclusion in its [2017 Global Opportunity Report](#) for the disruptive solution the Growboxx® offers to global soil depletion.

After an extensive due diligence, the Dutch Government awarded Groasis as [National Icon](#) in 2016, for being one of the 3 most innovative projects of the Netherlands with a high social impact and supporting economic growth.

For more information on the Groasis Ecological Water Saving Technology – [www.groasis.com](http://www.groasis.com)  
YouTube (fruit)tree planting channel <https://www.youtube.com/user/Groasiswaterboxx>  
YouTube vegetables planting channel <https://www.youtube.com/user/GroasisVegetables>

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