5º Seminário Internacional de Convivência com o Semiárido | 08 e 09 Novembro de 2018

Agricultura Resilente em um contexto de mudanças climáticas

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Ben-Gurion University of the Negev

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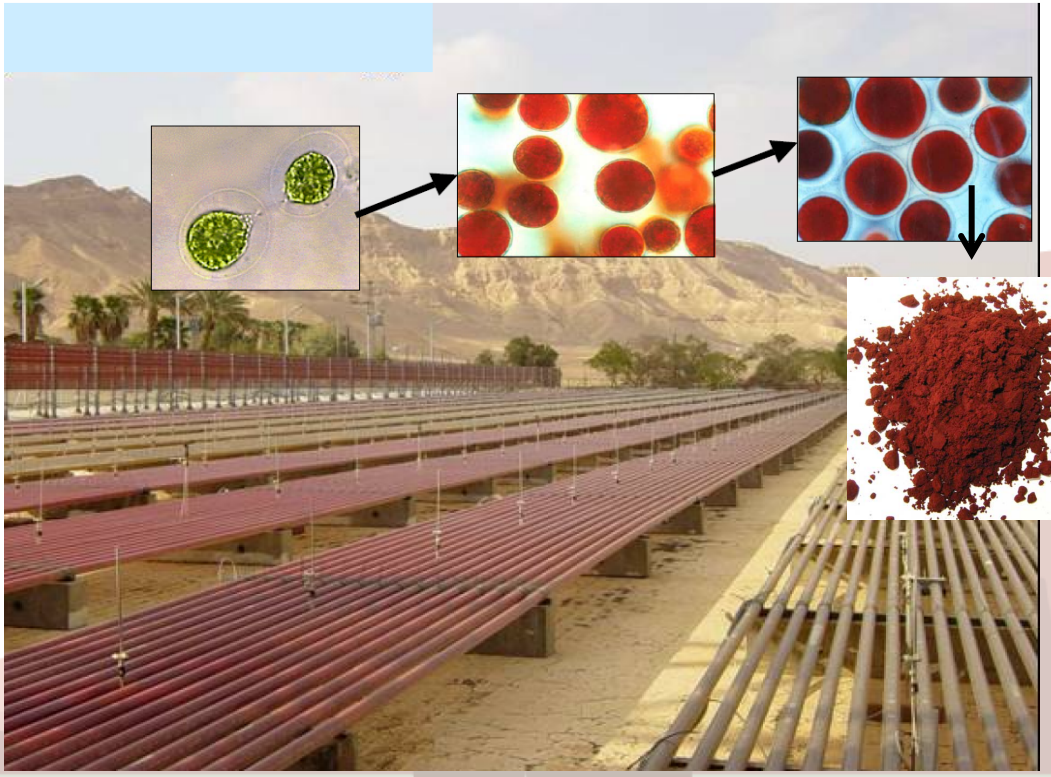
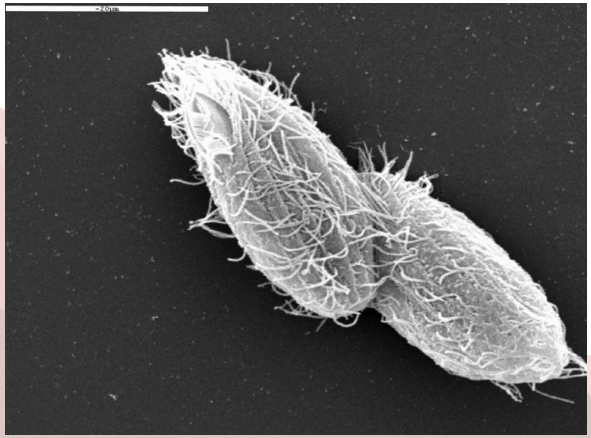
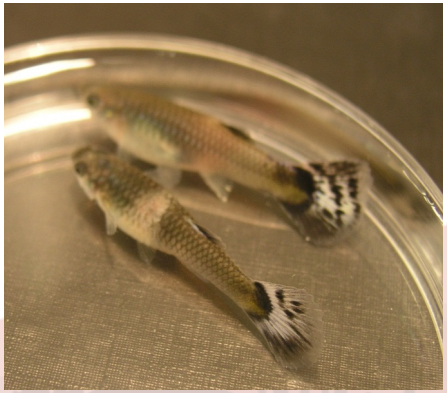
Microalgae: The Single-Cell Factory of the Future - Prof. Sammy Boussiba

Astaxanthin production from *Haematococcus pluvialis* at Alga Technologies, Kibbutz Ketura



Aquaculture: New Enterprises for Arid Lands Combating Fish Diseases– Dr Dina Zilberg





Development of natural, plant-based treatments against selected fish parasites and protozoa

Vaccine development

Dietary supplementation with unique microalgal species as immunostimulants

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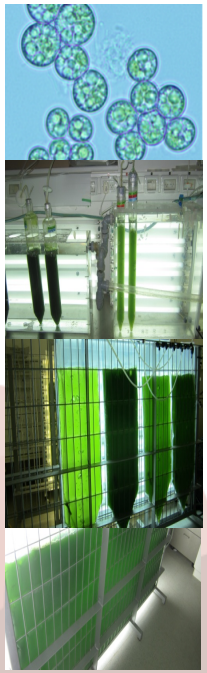
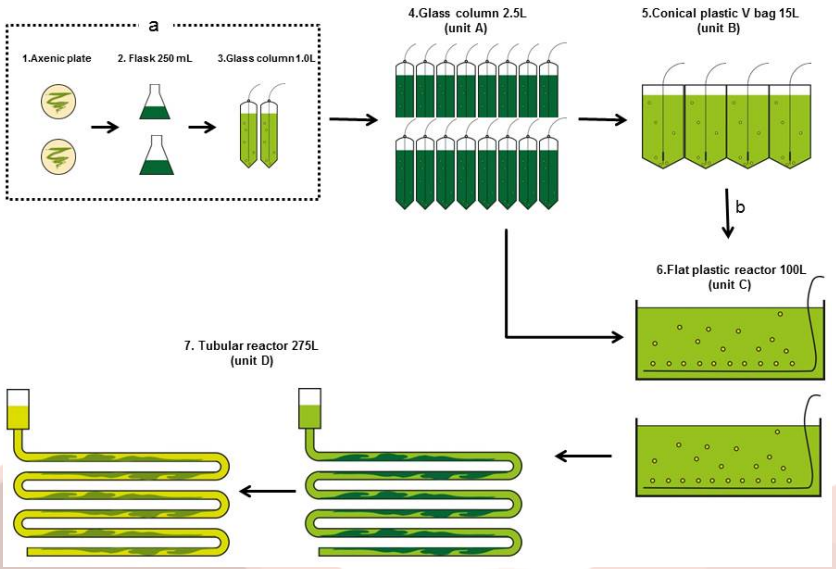
Delta-5 desaturase mutant of *Lobosphaera incisa*: optimizing up-scaled production DGLA by the microalga and testing its application as a dietary supplement in fish





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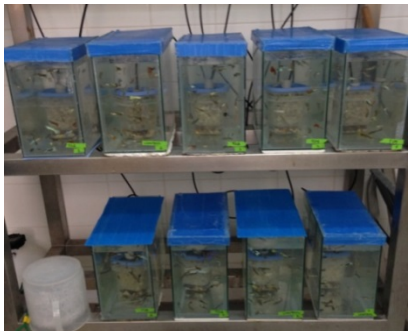
Experimental Set up

Dietary supplementation with control, 5% ,10% and 20 % of P127

Guppies were feed (2% bw/day)

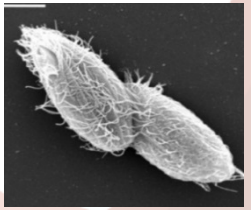


Trial 1

2- 4 weeks

Sample colletion :Immune analyses / FA (GC-FID)

Challenge: *Tetrahymena* sp .



Trial 2

4-7 days

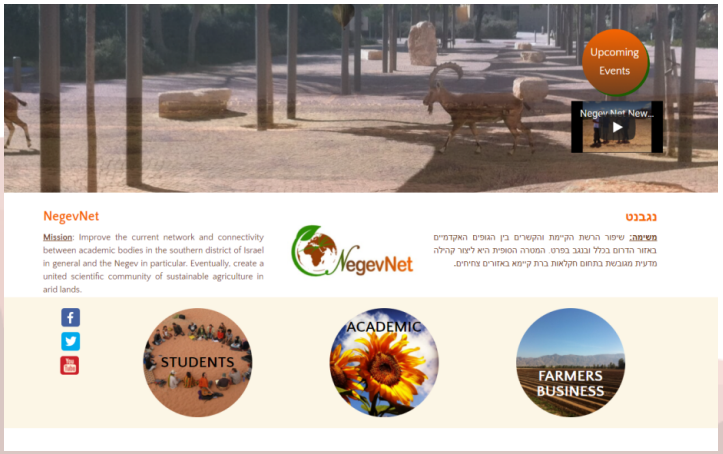
Sample colletion : FA (GC-FID)

Analyze mortality

NegevNet נגבנט

Creating one geographical net of all the Negev and dry areas in the world

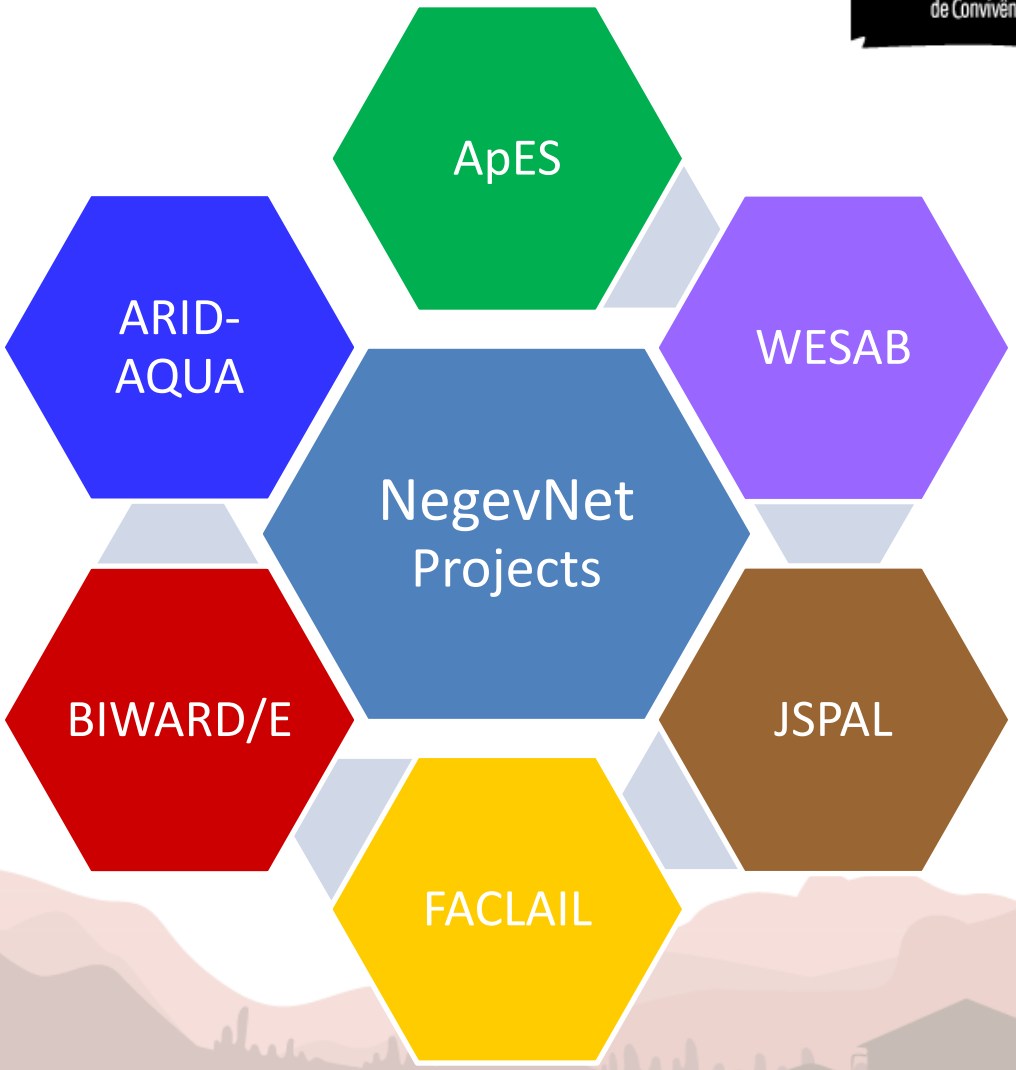
- **Mission**: Improve the current network and connectivity between academic bodies in the southern district of Israel in general and the Negev in particular. Eventually, create a united scientific community of sustainable agriculture in arid lands.



Negev Net

www.negevnetwork.com

Projects


ApES
ARID-AQUA
WESAB
NegevNet Projects
BIWARD/E
JSPAL
FACLAIL

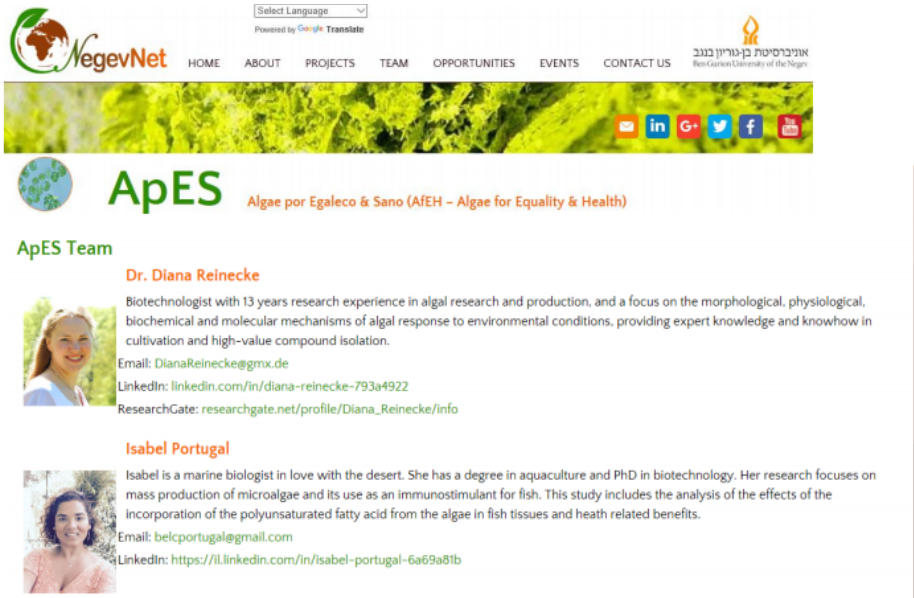
ApES – Microalgae

Hochschule Anhalt
Anhalt University of Applied Sciences

NegevNet

ApES
Algae por Egaleco & Sano

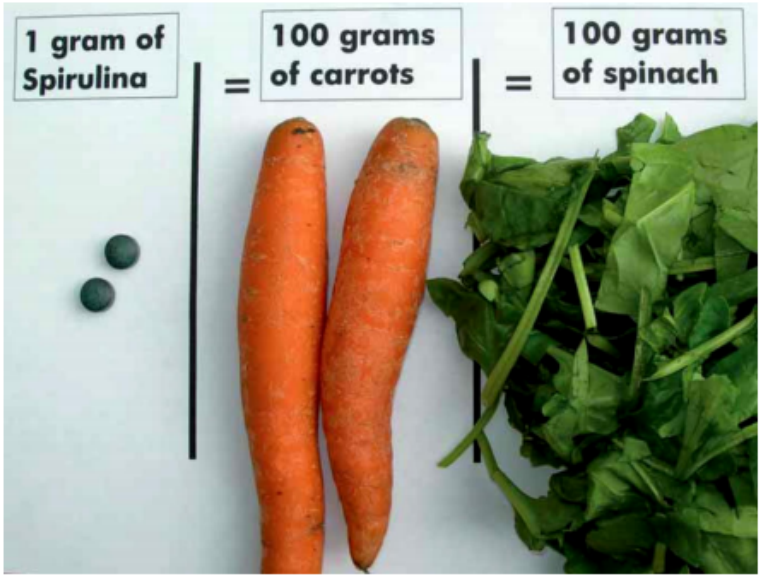
Dr. Diana L. Reinecke-Levi
Anhalt University of Applied Sciences
Biotechnology & Process Engineering
Köthen, Germany



www.negevnetwork.com/apes

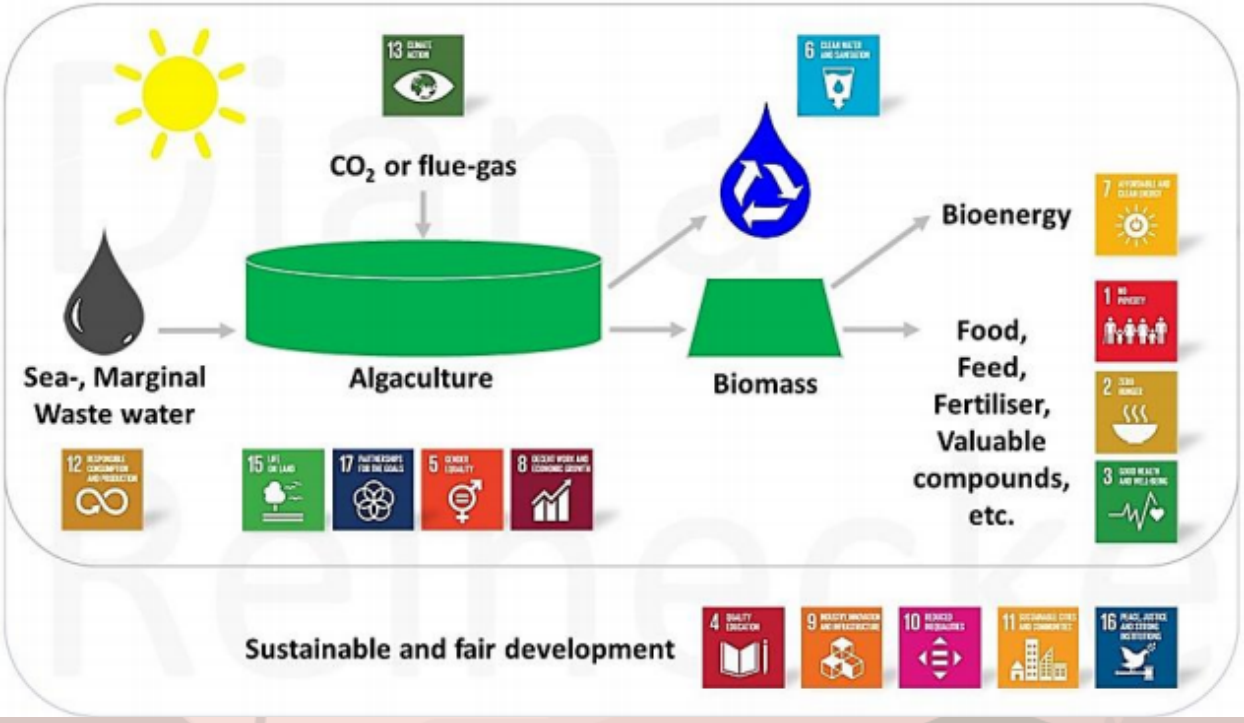
Why Algae ?

✓UN, WHO, FAO: *"Spirulina - The Best Food For The Future"*



Why Algae?

✓Sustainable food, feed and energy source to meet Human Development Goals



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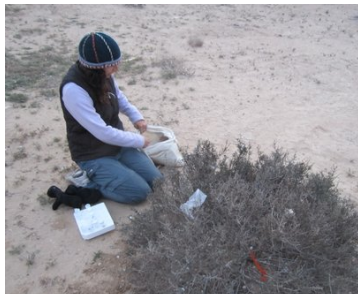

WESAB

Women Empowerment in Sustainable Agriculture and Biotechnology for Dryland Systems (WESAB) Project

Isabel Portugal, Daniela Jerszurki, Amber Hill, Iael Raij, Assaf Chen, Shimon Rachmilevitch

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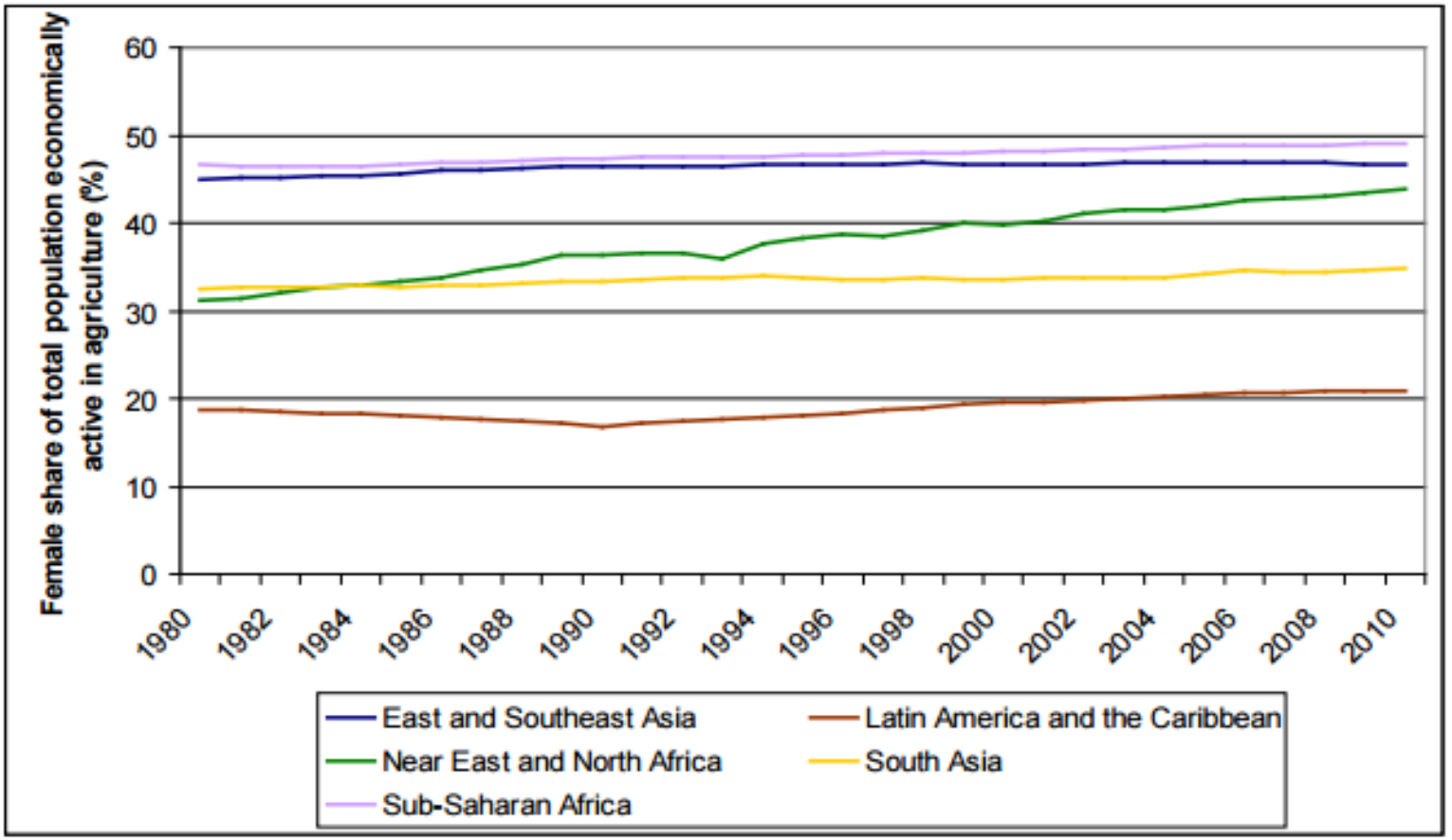
Women Empowerment in Sustainable Agriculture and Biotechnology for Dryland Systems **WESAB**



www.fao.org/economic/esa FAOSTAT (2011)

A forum of women leaders for teaching and networking across borders, from Israeli's dryland agricultural system solutions to Brazil

The challenge:

- Women who are at the forefront of their careers have to leave the work field and lose their place.
- Women are working in the field but do not have leadership roles.
- Environmental challenges for dryland agriculture

The solution:

- Women empowerment forum in agriculture and biotechnology
- Provide local sustainable agricultural solutions for dryland agriculture
- Network across borders for more sustainable agriculture practices

Methodology:

Women Empowerment in Sustainable Agriculture and Biotechnology for Dryland Systems

- Theory
- Hands on/ field trips
- Social Impact

Intensive Course:
Plant physiology
Soil and Irrigation
Aquaculture
Sustainability
Agro ecology

Instructors:
- Graduate students / Researchers
- BGU

UFRN/ IFRN/UFERSA/UFAL/UFC

Women forum - networking

Co-op

- Sharing kids care
- Community garden
- Sharing work load on different times of life

Joining research and knowledge sharing

Do Negev de Israel para o Nordeste do Brasil

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2nd BIWARD -Israel Water and Agriculture Research and Development (Innovation)

19 - 22/11/2018

Fortaleza / CE

Universidade Federal do Ceará

Instituto Federal Ceará

CONIB Confederação Israelita do Brasil

Ben-Gurion University of the Negev

Universidade Estadual do Ceará

Embaixada de Israel no Brasil

קרן קימת לישראל KEREN KAYEMET LEISRAEL KKL BRASIL

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Obrigada -Todah Raba - Gracias

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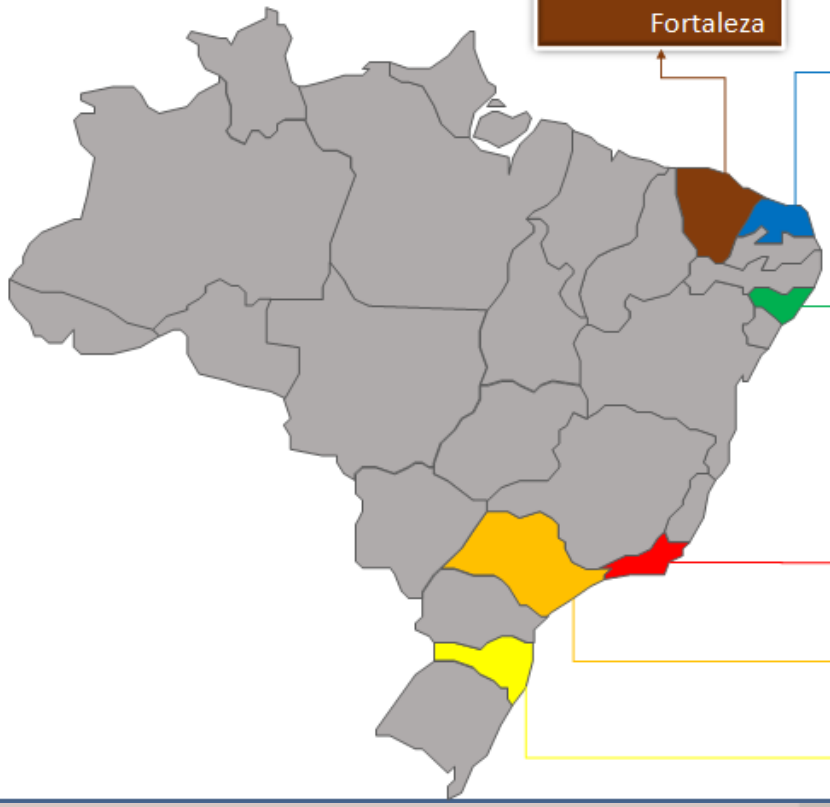

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Rio Grande do Norte – Natal
Currais Novos
Parnamirim
Grossos
Mossoró
Tibau

Alagoas – Maceio
Arapiraca

Rio de Janeiro – Rio de Janeiro

São Paulo - São Paulo

Florianópolis (Laguna)

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