



SALAD
Saline AgricuLture for ADaptation

Sowing seeds of resilience, saline agriculture for global food security

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why focus on saline agriculture?

- around 1 billion (!) hectares salt-affected
- plus 2000 ha every day
- for 1.5 billion people food security and livelihoods under pressure
- salinity = soil degradation, low yields, low income, poor nutrition (health), migration,....

ensure solutions reach farmers!



The Salt Doctors -who we are-



19
countries

>1000
hectares
cultivated

>1400
people
trained

53
projects

Independent social enterprise, implementation partner for:

- salinity assessments
- research, training, capacity building
- design and implement farming systems for saline conditions



Effects of improved variety and cultivation

Kenya 2018



Result: 94% yield increased, moderately saline

Bangladesh 2017-2019



new crop cultivation in dry season

Implementation: potato production under saline conditions

Pakistan 2016-2017



Results: **42% higher yields in comparison to common variety** (ECe around 8 dS/m, 10 ha total)

Egypt 2020-2021

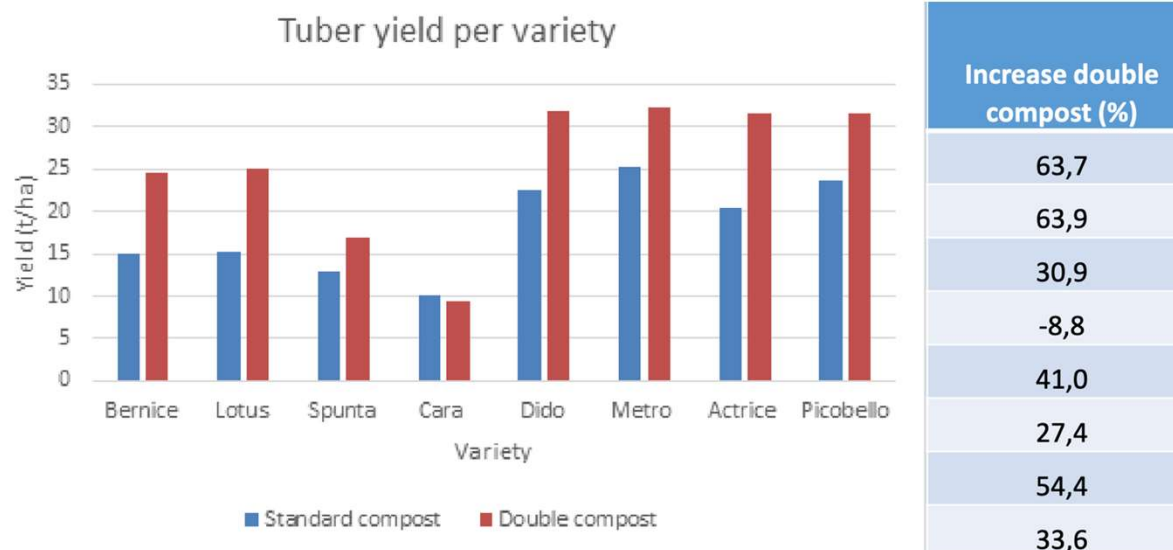


Results: **32 ton/ha**, ECe 5-6 dS/m

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Economic analysis potato cultivation under saline conditions (Egypt)



Difference in profit (double-standard)	Bernice	Lotus	Spunta	Cara	Dido	Metro	Actrice	Picobello
Per feddan	EGP 14.340,86	EGP 13.975,62	EGP 2.736,89	-EGP 6.663,77	EGP 17.059,78	EGP 10.189,97	EGP 16.557,56	EGP 11.343,73
Percentage change	27%	64%	8%	-17%	88%	76%	77%	60%

Implementation in coastal Bangladesh 2017-2019



Establishment of a test facility, testing the salt tolerance of local crops.
Training of trainers, 200 lead farmers, 5000 community farmers.
Providing knowledge, skills and seeds to farmers

De Vos *et al.*, 2021

Future of sustainable agriculture in saline environments



Results

-after 2 years, based on independent project evaluation-
260 random surveys from 1920 group farmers and 80 lead farmers

- **Food security increased from 15% to 65%**
 - Based on Household Food Insecurity Access Scale-0 (full food security)
- **Use of salt affected fallow land increased from 0% to 76%**



- **average household income increased by 34%**
- Percentage with more than 100 euro increase:
 - 55% for lead farmer, 4% for group farmer
- **Employment increased by 10% for lead farmer, 41% for group farmer**



- **Vegetable consumption (150 g/day, 10 months/year) increased from 26% to 74%**
- Household **improved dietary diversity** increased from 75% to 100%



- **Women with improved skills** for sustainable food production increased from 9% to 79%
- **Access to land for women** increased from 4% to 87%



Integrated solutions: Agroforestry



“Aquaforestry” Kenya: combining agroforestry with rainwater harvesting, hydroponics and fish farming



Early 2020



Late 2023

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Results so far:



- yield increase of 42-94% possible
- introduce new crop season (in dry, saline season)
- increase income for farmers 34-88%
- impact on SDG, capacity building takes 2-4 years
- impact on landscape level, community level, soil fertility, agroforestry, 6-10 years
 - > safeguarding long-term profitability, enhanced livelihoods, food security, improved environmental sustainability,....



Our ambition; the “10-10 plan”

Achieving impact on a global level by enabling farmers to adapt to the ever-increasing salinity levels



Creating global impact by:

- 10 living labs, global community of practice
- strategies to optimize use of salt-affected land and saline water
- “best practice” for various climate zones and salinity levels
- hands-on training for farmers, digital solutions
- showcase clear market opportunities for farmers, cost-effective solutions, business cases for saline agriculture (public-private partnerships)

10 countries,
10 years

>10.000
hectares
cultivated

The time to act is now. We appeal to governments, development banks, NGO's, philanthropists and stakeholders to invest in our 10-year plan

Together, let's cultivate a future where food security is assured,
communities thrive and our planet flourishes!

Thank you!



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