AGRICULTURE ECOSYTEM IN ISRAEL

Doron Lebovich,
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Israel Embassy Hanoi

Climate in Israel

Climate/geography facts:

Half of Israel is desert - Less than 20% arable land

But…

- Israel 95% of agriculture produce independent
- Significant citrus exporter, world's largest date exporter, etc…
- Exporting agricultural expertise globally

"New York's finest caviar: All the way from a socialist kibbutz in northern Israel"

New York Times, April 2012

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Why Agro-Technology?

Increasing Quality of Life

Population Growth

Increasing Global Demand for Food

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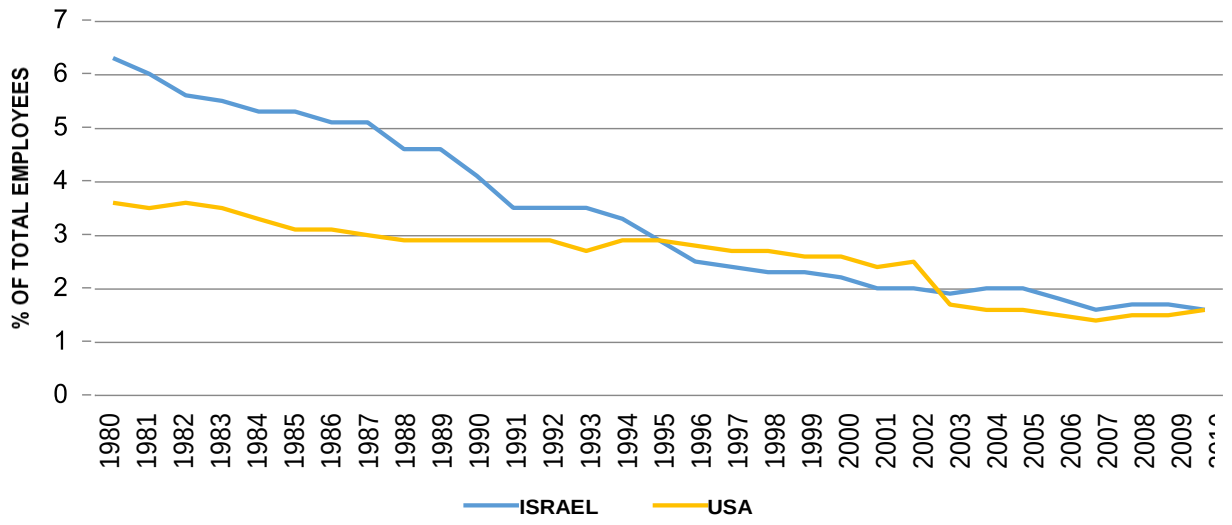
Why Agro-Technology?

Reduction of Labor Force in Agriculture



SOURCE: World Bank, 2015

Challenges / Barriers in the Agro- Technology sector

- Long & expensive development process
- Fewer financial resources
- Interdisciplinary
- Conservative end costumer (technology)subject
- Regulation

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AGRICULTURE ECOSYSTEM IN ISRAEL

Ministry of Science

Volcani Research Center

Ministry of Agriculture

The innovation Authority

Ministry of Economics

ISRAEL GOVERNMENT

Academy

Associations

Agro-Tech

Industry

Funding

- Pre-Seed
- Seed
- Development
- Growth

- Research
- Entrepreneurship
- Companies

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VOLCANI CENTER

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ACADEMY

RESEARCH INSTITUTIONS

Volcani Research Center

The Agriculture Faculty

The BioTech Faculty

Environmental Engineering

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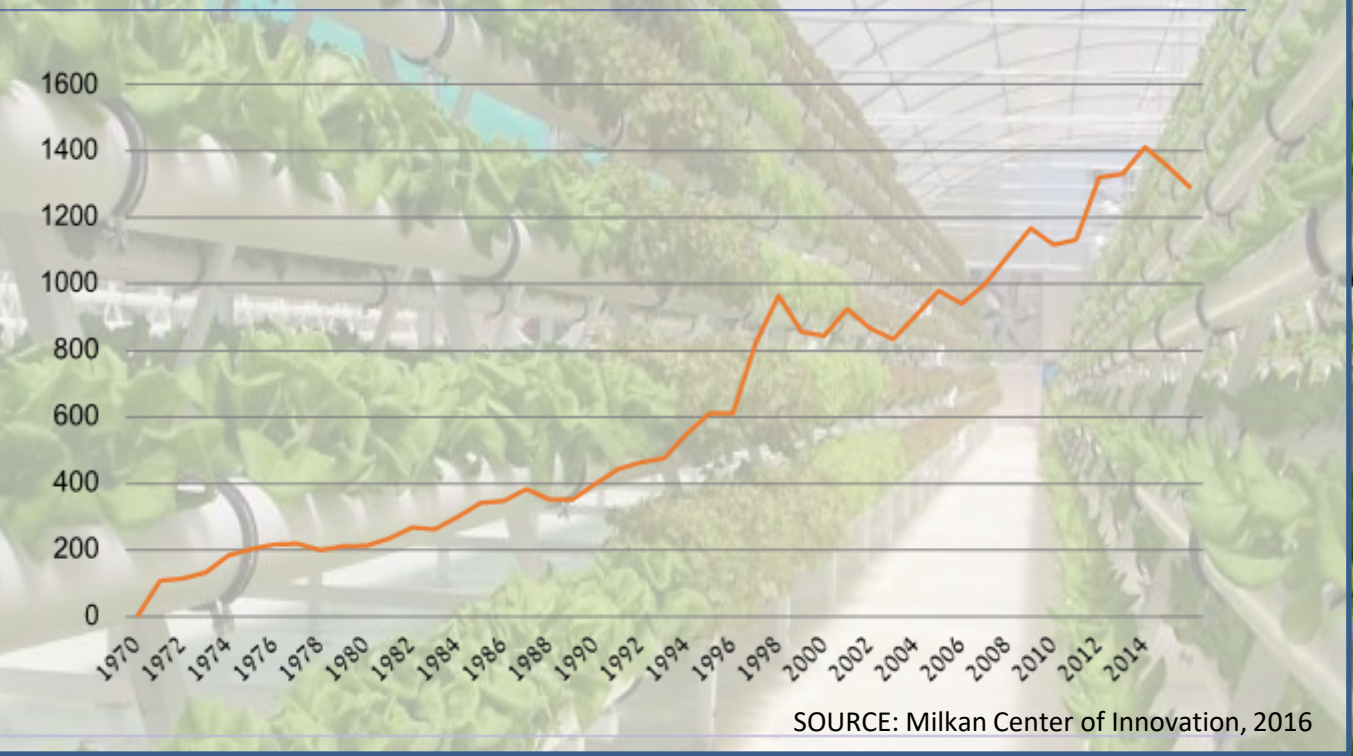
Number of Agriculture Articles



SOURCE: Milkan Center of Innovation, 2016

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INDUSTRY - SECTORS

Bio-Technology	Seed Improvement	Water Irrigation	Post Harvest
Indoor Agriculture	Aquaculture	Agricultural Machinery	Fertilizers
Bio-Pesticides	Precision Agriculture	Food-Tech	Feed Additives

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INDUSTRY

BioYOME
With You from the Root to the Fruit

ADAMA
Agan

stk
The smart way to grow.
Stockton Group

Mottes
Tensiometers

ROOTS
Sustainable Agricultural Technologies Ltd.

ORIGENE
SEEDS

זרעים גדרה
זני איכות
syngenta

BZTECH
solution

Hazera
Seeds of Growth

A.R.I.
OPTIMAL FLOW SOLUTIONS

NAANDANJAIN
A JAIN IRRIGATION COMPANY
Celebrating 80 years
of Irrigation solutions for better farming

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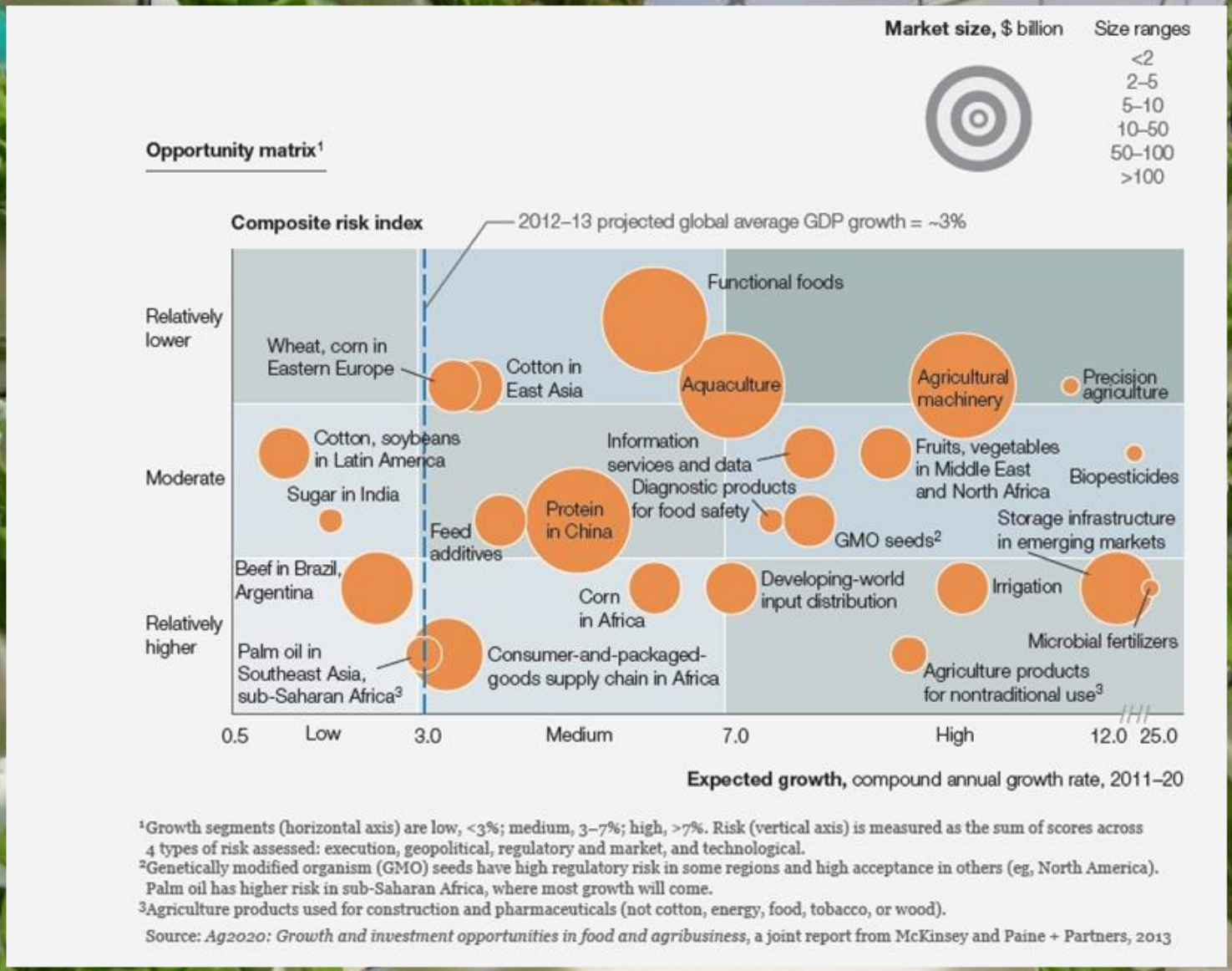
McKinsey's Forecast for Agro-Technology Industry



[1]Growth segments (horizontal axis) are low, <3%; medium, 3–7%; high, >7%. Risk (vertical axis) is measured as the sum of scores across 4 types of risk assessed: execution, geopolitical, regulatory and market, and technological.
[2]Genetically modified organism (GMO) seeds have high regulatory risk in some regions and high acceptance in others (eg, North America). Palm oil has higher risk in sub-Saharan Africa, where most growth will come.
[3]Agriculture products used for construction and pharmaceuticals (not cotton, energy, food, tobacco, or wood).

Source: *Ag2020: Growth and investment opportunities in food and agribusiness*, a joint report from McKinsey and Paine + Partners, 2013

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TAX $$

BIGGER ISSUES

GOVI
Center fo
Researc

SOLUTIONS

Provinces
Center for Research and Development (R&D)

ISSUES

SPECIFIC SOLUTIONS

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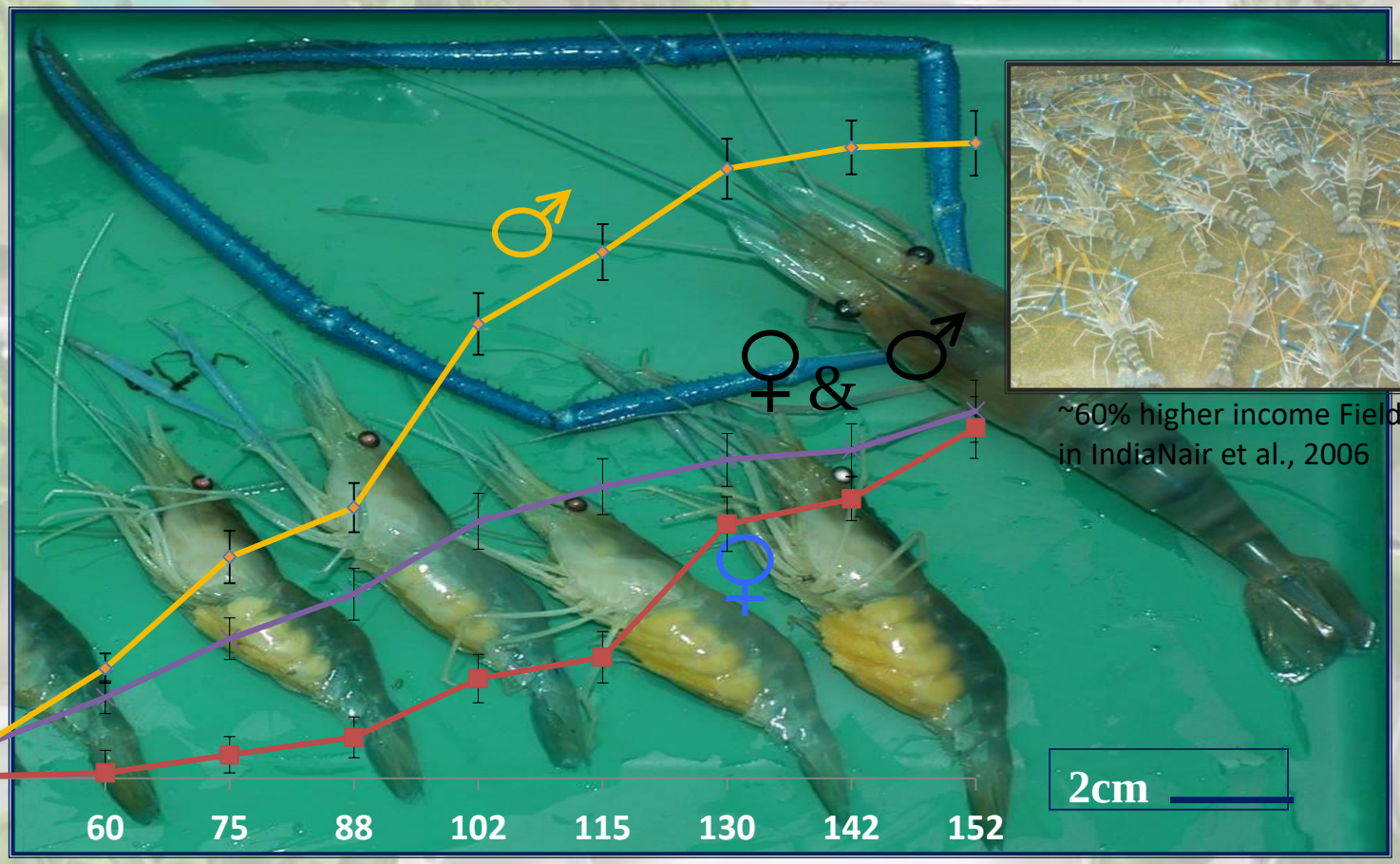
Macrobrachium rosenbergii dimorphic growth in favor of all-male culture and selective harvest



~60% higher income Field study in IndiaNair et al., 2006

Modified from Sagi et al, 1986

* Includes only the marketable yields (≥30g)

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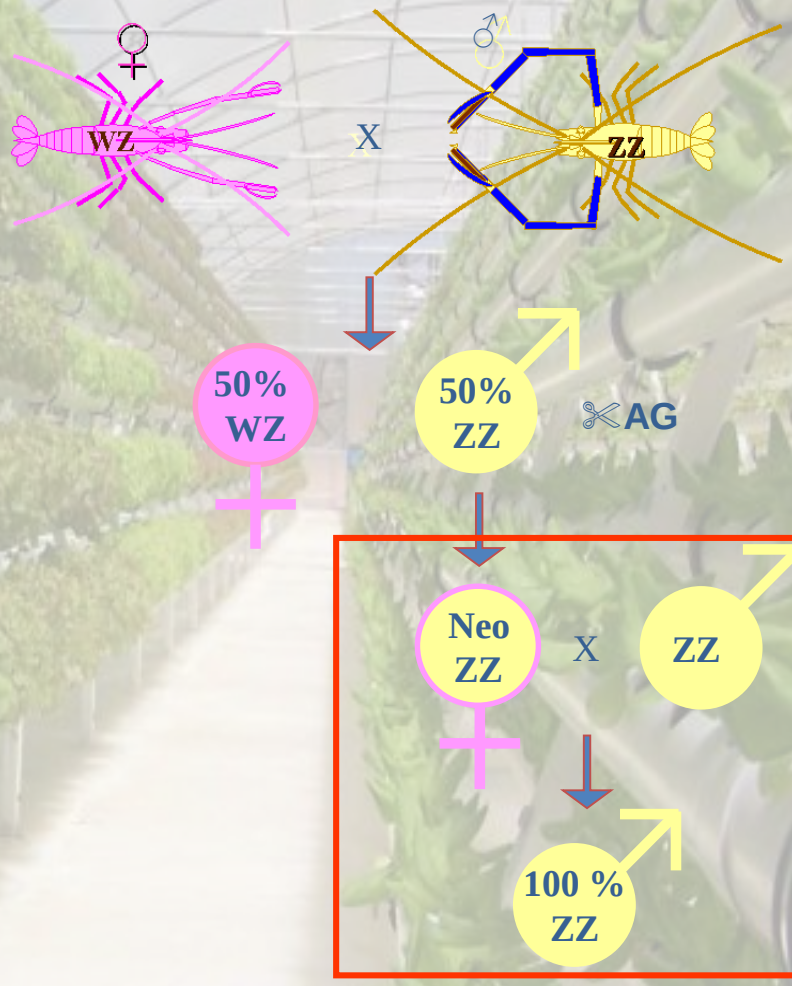
NEO- FEMALE AND MALE PRAWNS PRODUCE AN ALL-MALE POPULATION

- Male Prawns are homozygote (ZZ)
- Female Prawns are heterozygote (WZ)
- Crossing Neo-female (males without AG) and male prawns results in an all male population



- Automatic body condition measurement
- Lying sensor
- Individual feeding
- Milk composition online sensor

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THANK YOU