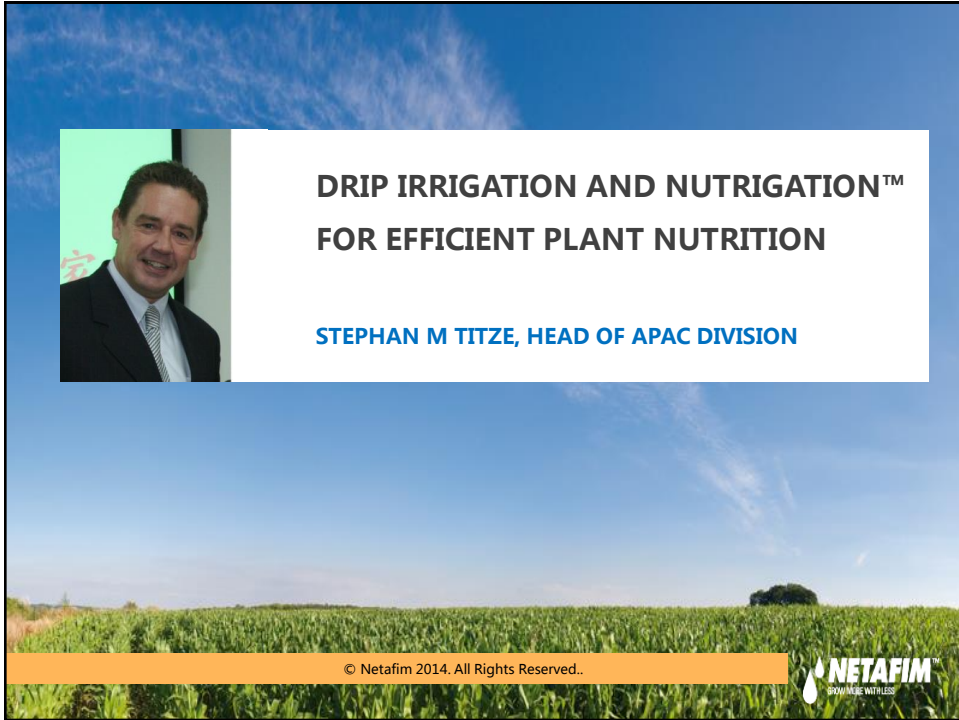



## DRIP IRRIGATION AND NUTRIGATION™ FOR EFFICIENT PLANT NUTRITION

STEPHAN M TITZE, HEAD OF APAC DIVISION

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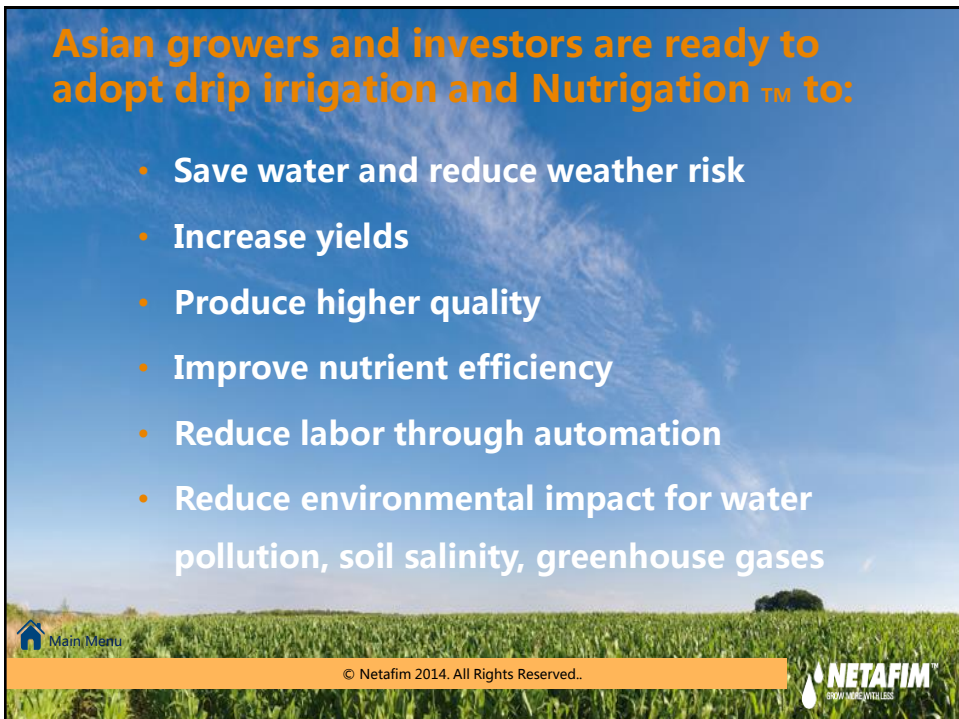



### Asian growers and investors are ready to adopt drip irrigation and Nutrigation™ to:

- Save water and reduce weather risk
- Increase yields
- Produce higher quality
- Improve nutrient efficiency
- Reduce labor through automation
- Reduce environmental impact for water pollution, soil salinity, greenhouse gases

Main Menu

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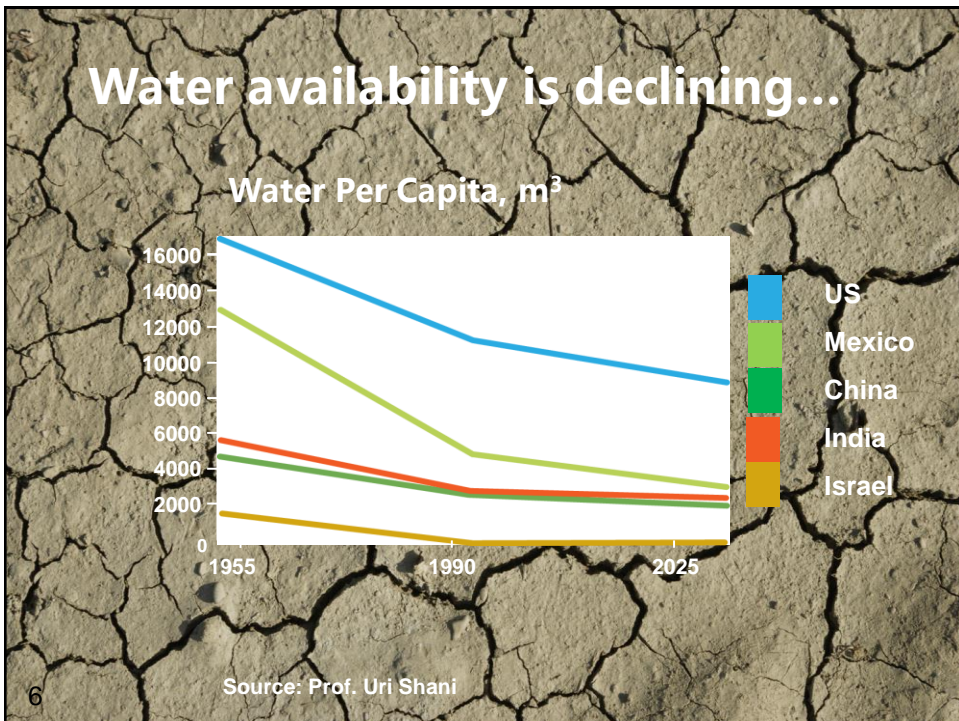




## AGENDA

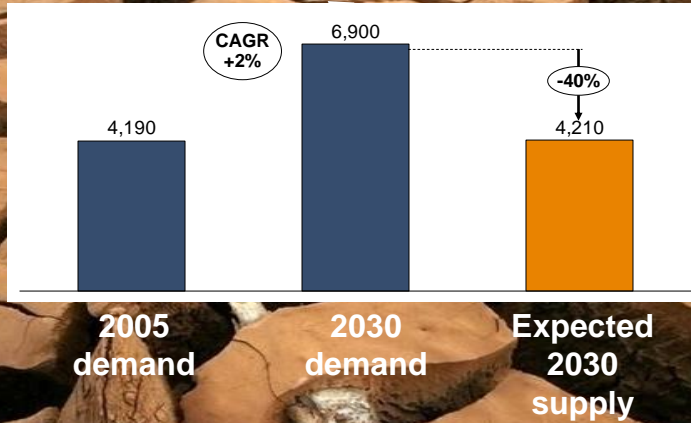
- Irrigation technology to meet the food challenge
- Netafim, inventor and leader in drip-irrigation
- Drip-irrigation technology
- Benefits of drip irrigation and Nutrigation TM
- Successful examples of drip irrigation and Nutrigation TM in APAC





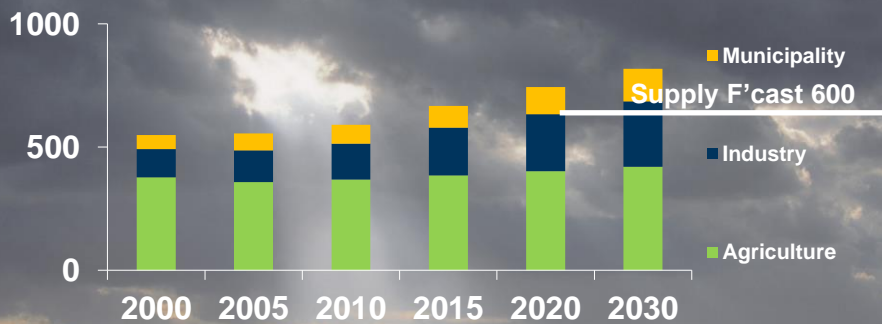
...and by 2030 global demand will exceed supply by 40%

Water Demand and Supply Billion m<sup>3</sup>/year

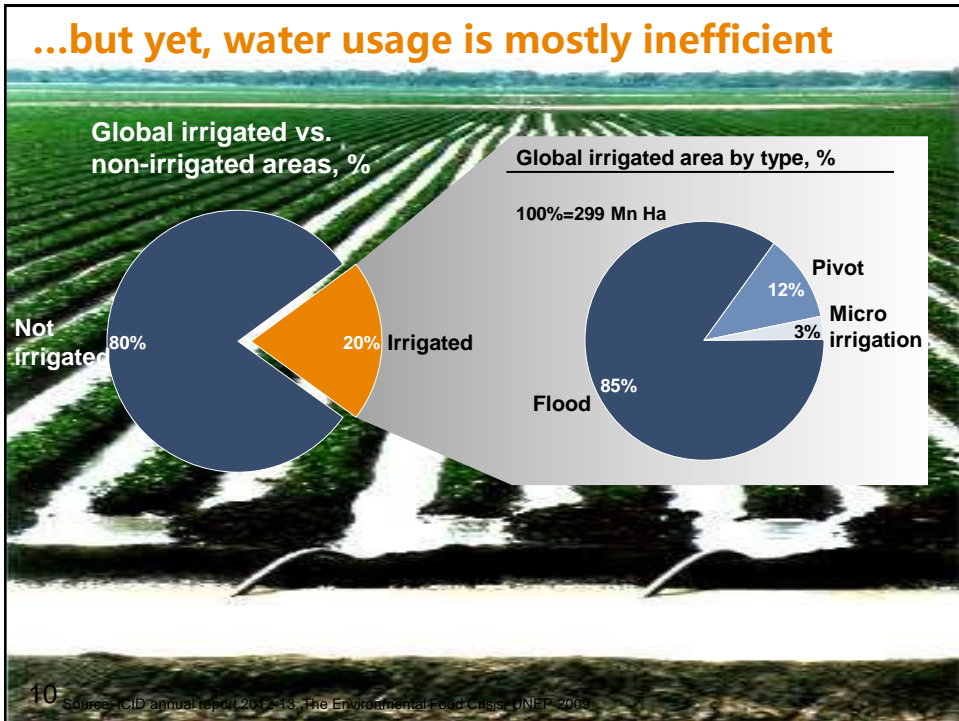
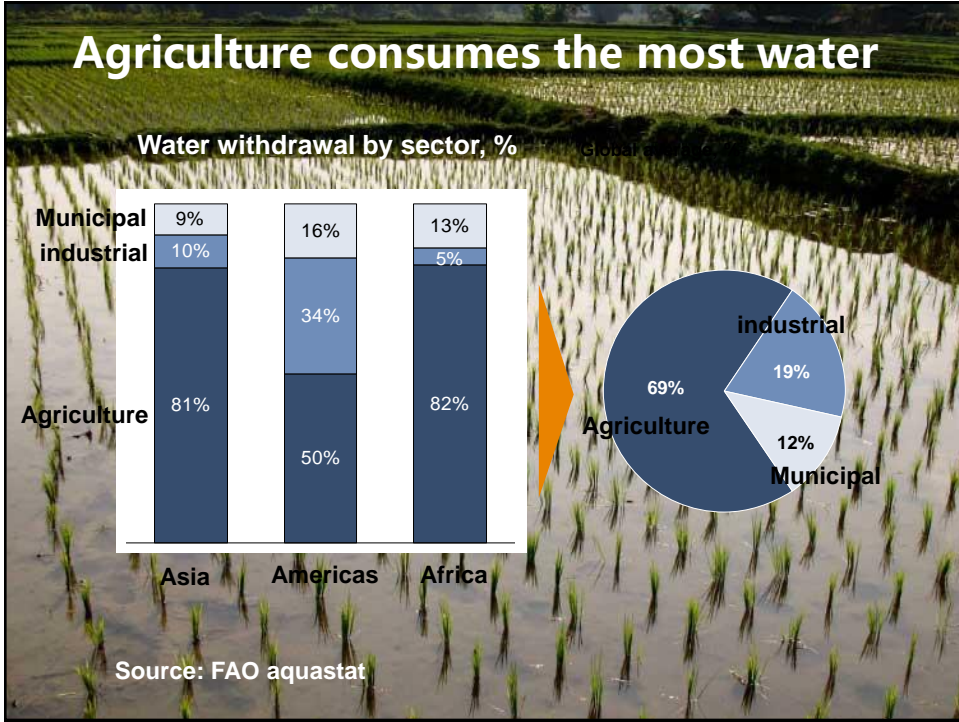


Source: Mckinsey

China will face a water shortage by 2030 due to increasing consumption and reducing supply



China Government plans to spend 4 trn Rmb 2011 – 2020  
Drip irrigation an important part of the solution



## Opportunity to change to drip.....



**Netafim is the original inventor and  
World-leader in drip-irrigation**



*“With Netafim, I have  
control over the climate”*

— John Wright, California, USA

## 50 years ago Netafim pioneered drip

**1965** Netafim is established at Kibbutz Hatzertim where the vision began

**1967** Netafim introduces the world's first commercialized dripper

**1981** Netafim opens the first subsidiary outside of Israel becoming an international company

**1999** Netafim merges into one corporation

**2008** Netafim joins as a member of the UN water mandate forum, partnering global effort to address long-term global challenges

**2011** Permira Funds acquires control

**2013** Laureate of the Stockholm industry water award

13 Footer info Confidential


## Today we are the Global leader

**16** Manufacturing plants

Over **4,000** Employees across 5 Continents

A global network of **27** subsidiaries and a myriad of distributors covering **110** countries

---







## Netafim has a comprehensive product range



## We also offer small-holder drip systems



## Generation of drippers have been developed for many crops and situations





Year	Model Name	Description
1965	1.6 LAMBAVA DANIŞIÇI	
1967	HAT ÜSTÜ LAMBAVA DANIŞIÇI	
1970	HAT ÜSTÜ DANIŞIÇI	
1975	BUTONLU DANIŞIÇI	BUTONLU DANIŞIÇI (DÜĞME DANIŞIÇI)
1978	1.6 LAMBAVA DANIŞIÇI	1.6 LAMBAVA DANIŞIÇI (DÜĞME DANIŞIÇI)
1982	1.6 LAMBAVA DANIŞIÇI	1.6 LAMBAVA DANIŞIÇI (DÜĞME DANIŞIÇI)
1989	TRİPOZON BAĞIÇ AYARLIÇI	TRİPOZON BAĞIÇ AYARLIÇI (DÜĞME DANIŞIÇI)
1991	TRİPOZON BAĞIÇ AYARLIÇI	TRİPOZON BAĞIÇ AYARLIÇI (DÜĞME DANIŞIÇI)
1993	STRİGABLING BAĞIÇ AYARLIÇI	STRİGABLING BAĞIÇ AYARLIÇI (DÜĞME DANIŞIÇI)
1996	PEZ	PEZ (DÜĞME DANIŞIÇI)
1998	ARROW DANIŞIÇI	ARROW DANIŞIÇI (DÜĞME DANIŞIÇI)
1999	FLORIDANT	FLORIDANT (DÜĞME DANIŞIÇI)
2001	UNIRAM	UNIRAM (DÜĞME DANIŞIÇI)
2003	UNIRAM	UNIRAM (DÜĞME DANIŞIÇI)

## Dripper technology developed by Netafim - Uniraam™



**Root Barrier**

**Cover**

**Diaphragm**

**Pressure Compensation Chamber**

**Filtration**



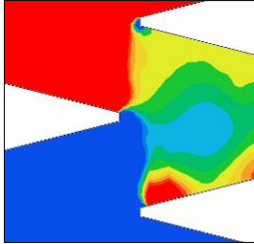
**Exclusive Root Intrusion Barrier**

**Anti-Siphon Mechanism**

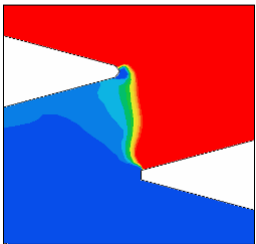
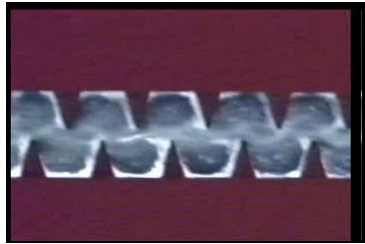


## Turbonet™ flow path to avoid clogging

Flow with an improved turbulence



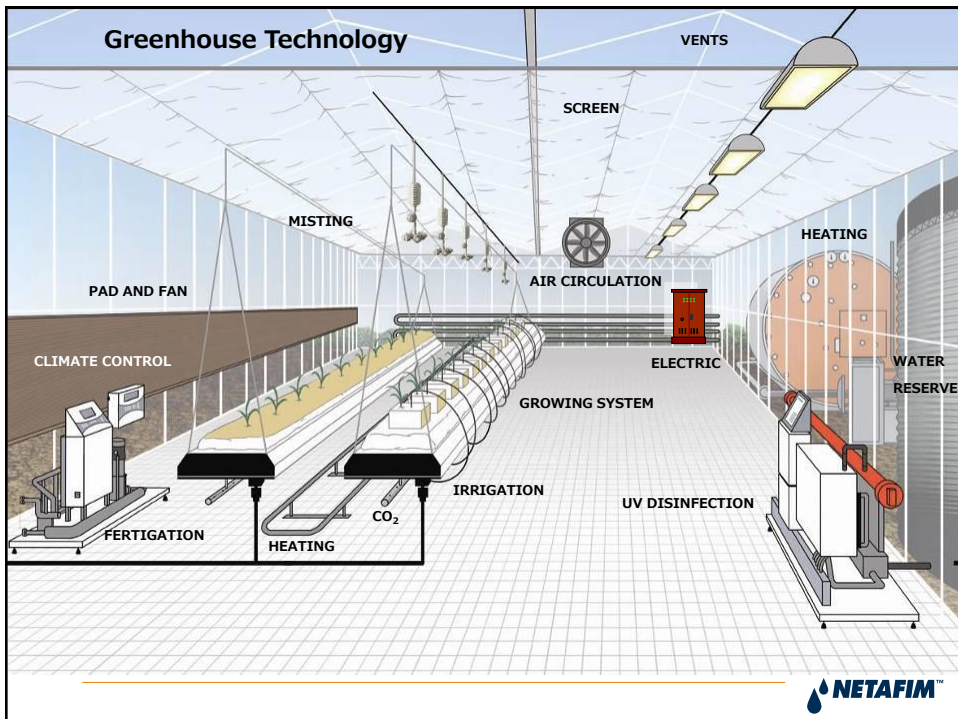
TurboNet™ flow in a Netafim™ Dripper



Flow without improved turbulence



## Greenhouse Technology



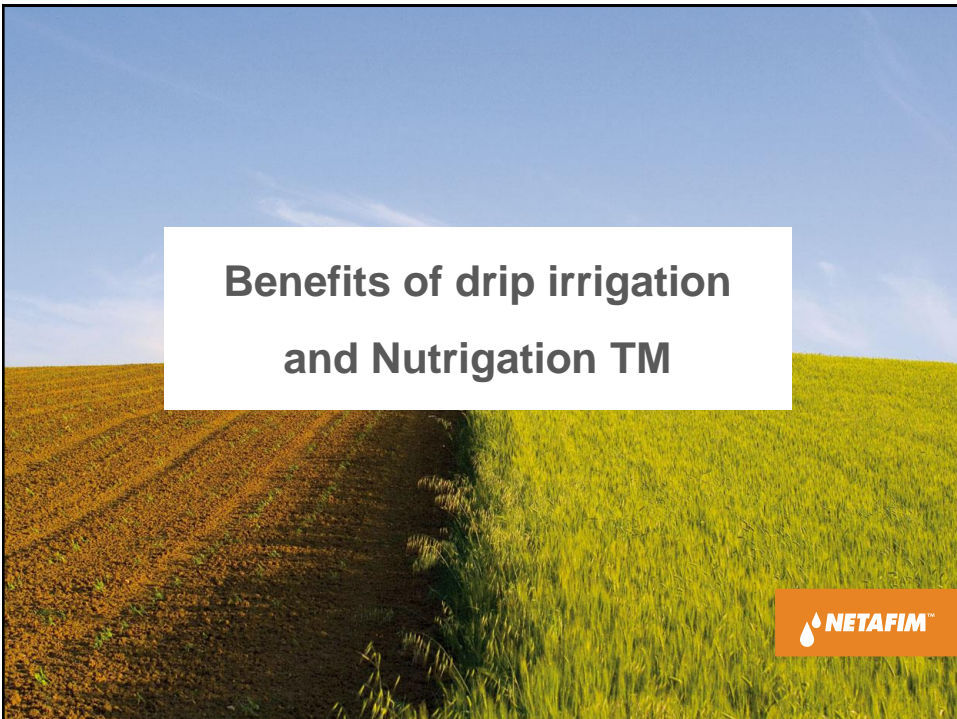
**Sera Greenhouse – Japan 8.6 ha's**



## We also make plant walls – Pasona Building Tokyo



## Benefits of drip irrigation and Nutrigation TM



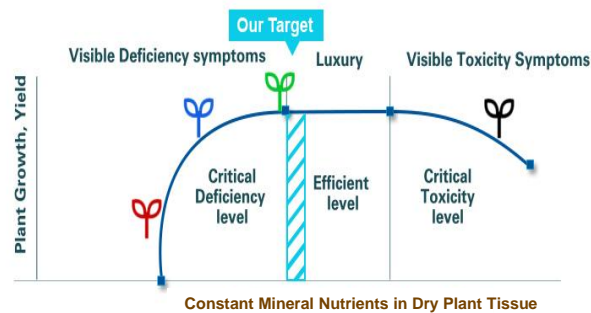
## What is the big difference between drip irrigation and other methods ?



We irrigate the plants and not the soil



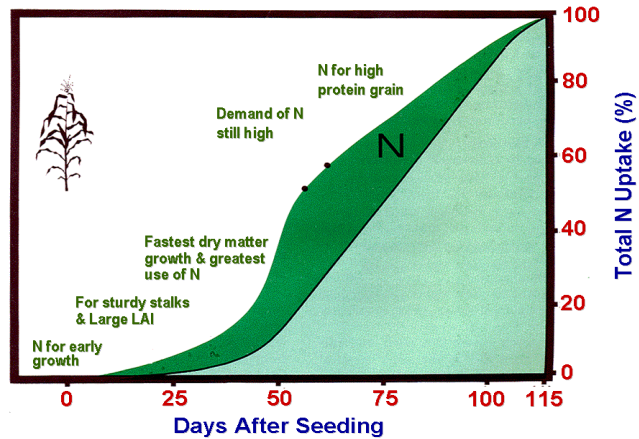
## Plant needs



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## Drip is like spoon feeding a plant



## Netafim is the only vendor that market & support the full solution

	Monitoring	Control	Fertigation	Management
High-tech GH				
Mid / low-tech GH				
Orchards & vineyards				
Row crops				
Small holders				



### Is 'Growing more with less' applicable to the fertilizer industry?

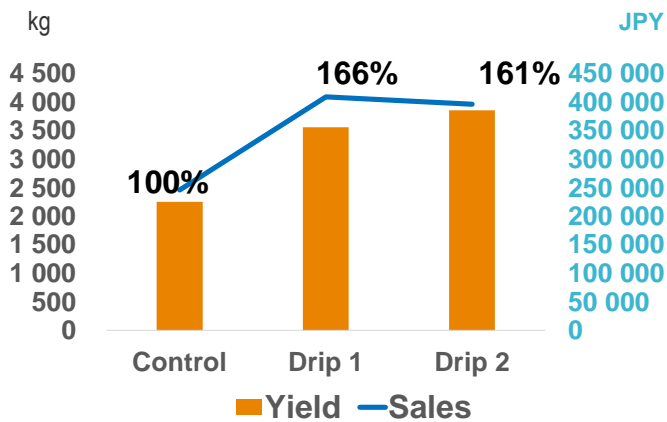
- Australia and the Great Barrier Reef
- Yellow River in Shandong Province
- Tea plantations in Japan
- Hazard to drinking water



Drip irrigation can improve nutrient efficiency



### Drip irrigation can improve yields and income for growers – growing more with less



Potatoes – Chiba Japan





## 37 % Yield increase in open field tomatoes Japan



**16 t per ha Corn  
In large plantation  
Cambodia  
Under drip with Nutrigation**



## New vineyards in Helan Mountain in Ningxia China



## Alfalfa (Lucerne) with sub-surface drip in Ningxia China for feed

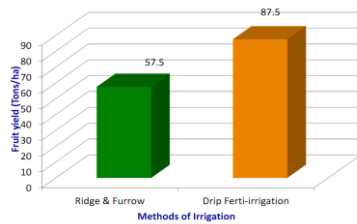


## Sugar cane in Australia with drip



## Banana

Banana yield:  
Drip fertigation versus Ridge & Furrow irrigation



## Cacao



## Rubber



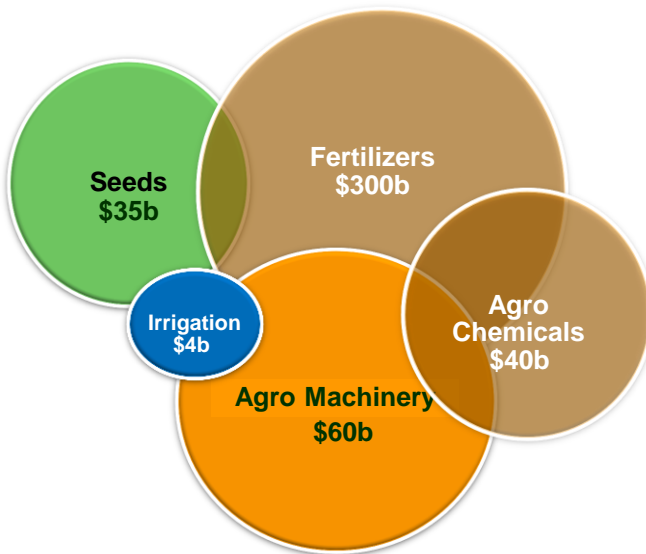
## Robusta Coffee



## Drip in Rice reduces greenhouse gases



## Ag-industry sectors have good growth potential

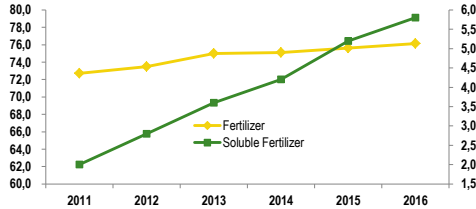


The irrigation market has a huge potential to grow  
Nutrification is where the fertilizer and irrigation industry meet



## Nutrigation is a growing opportunity for drip irrigation

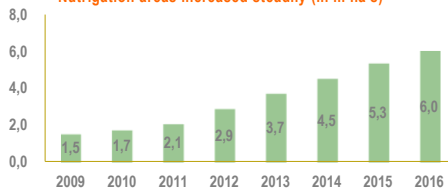
Consumption of soluble fertilizers increased faster than conventional fertilizers (m mt)



- Drip irrigation to save labor and increase nutrient efficiency

- Netafim has competitive edge in technology, products and service

Nutrigation areas increased steadily (in m ha's)



- Environmental benefits include water saving, improving soil quality, reducing pollution.



## Drip irrigation and Nutrigation TM will grow

### Growth Drivers

- Water shortage and climate change– cost of H2O
- Government subsidies
- Farm consolidation
- Ag investment
- High quality safe food
- Yield increases
- Efficiency
- Labor shortage
- Environmental pressure

### Barriers to Adoption

- Economics
- Agronomic practices
- Farm structure
- Upfront investment
- Capability
- Channel



## Opportunities for collaboration

- Drip irrigation system to apply targeted nutrition
- High value crops and field crops
- Government projects for subsidies
- Growing greenhouse market
- Agronomy and automation
- Product offer development
- Channel evolution



## Experienced Netafim Team in APAC



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**Remember! : Every drop counts**



**HELPING FARMERS  
GROW MORE WITH LESS**

