

# Controlled Release Nutrition for Potatoes & Sweet Potatoes



## Potato and sweet potato







# **Multicote Agri**



Multicote® Agri products combine controlled-release and readily available sources of nitrogen, phosphorus and potassium.





#### **CoteN™**

**Controlled-Release** nitrogen

CoteN<sup>™</sup> is a source of controlled-release nitrogen, based on polymer-coated urea.

CoteN<sup>™</sup> may be blended with non-coated N, P, or K to create CoteN Mix







### The benefits of Multicote Agri & CoteN™



- Single application per season = labor saving
- Optimized supply of nutrients
- Minimizes losses through leaching
  Availability of nutrients is ensured
  Lower application rates are required
  Minimized contamination of soil and groundwater









## On light soils where nutrients are easily leached







As base fertilizers for rainy season crops Rainfall accelerates nutrient leaching...







While the mud makes side-dressing application troublesome







Where nitrogen application rates are limited by local regulations, so high efficiency of nutrient use is desired



#### Trial in Kibbutz Ruhama, Israel (Negev), 2006 -Treatments



- Crop: Potato cv Venus
- Soil type: Sandy loam
- Application method:
- pre-sowing application in 2 banded rows at both sides of the trench.

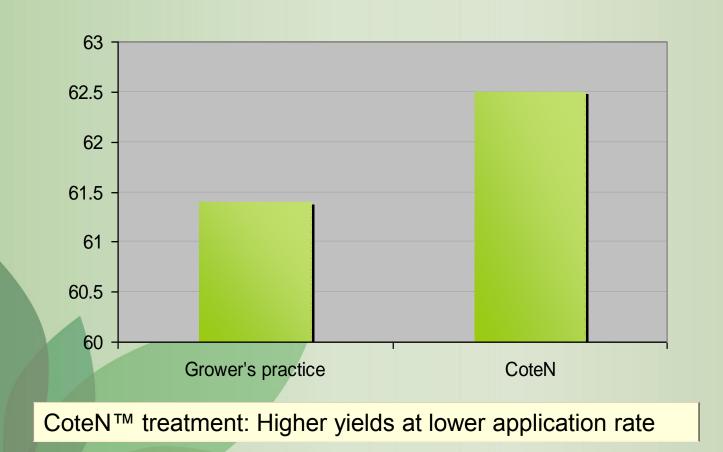
Treatment	Fertilizer	N kg/ha	Total tuber yield ton/ha	yield % dry matter	
Grower's practice	Urea 46-0-0	400	61.4	18.88	
CoteN	43-0-0 (70% coated)	240	62.5	19.23	



#### Trial in Kibbutz Ruhama, Israel (Negev), 2006



Yield (ton/ha)





Trial in Kibbutz Nir-Eliyahu, Israel, 2006 - Treatments

Crop: Potato cv Mondial

Soil type: Red loam

Application method: Pre-sowing application

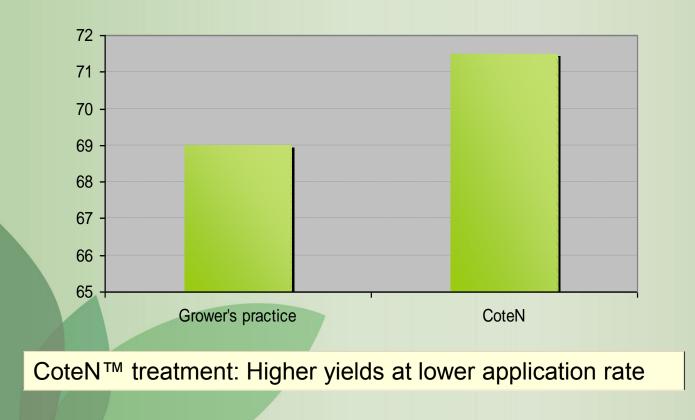
Treatment	Fertilizer	N kg/ha	Total tuber yield ton/ha
Grower's practice	Urea 46-0-0	420	69
CoteN	43-0-0 (70% coated)	350	71.5



#### Trial in Kibbutz Nir-Eliyahu, Israel, 2006



Yield (ton/ha)





#### Trial in Kibbutz Nir-Eliyahu, Israel, 2006

Additional benefits of CoteN treatment

- Higher N levels in the soil refer to reduced leaching
- Higher chlorophyll levels in the leaves







Trial in Cudgen, Australia (NSW), 2005 - Treatments



#### Crop: Sweet potato cv Beaureguard

		kg/ha			
Treatment	Fertilizer	Ν	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	
Grower's practice	Granular fertilizers	112	128	200	
Multicote Agri Hi	Multicote Agri 6M	102	112	175	
Multicote Agri Med	14.5-16-25	84	93	145	
Multicote Agri Lo	60-0-70% coated	74	82	128	

#### **Application method**

Grower's practice: base dressing + 2 side dressing applications Multicote<sup>®</sup> Agri: base-dressing, fertilizer was incorporated to the soil at bed formation before planting



#### Trial in Cudgen, Australia (NSW), 2005 - Results



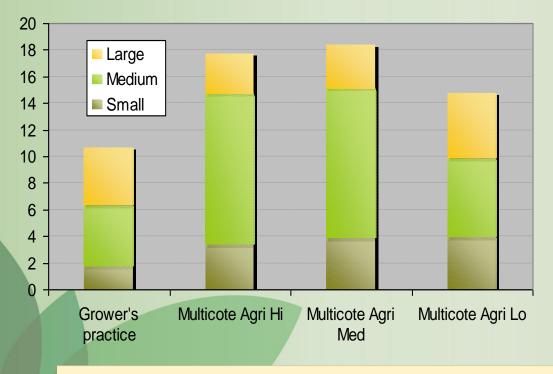
Treatment	Tuber size distribution (%)			Total yield Ton/ha	Income	
	S	Μ	L		US\$/ha	
Grower's practice	6	16	15	28.7	9,020	
Multicote Agri Hi	9	31	8	36.9	16,610	
Multicote Agri Med	11	32	9	35.3	16,975	
Multicote Agri Lo	12	18	15	32.8	12,580	





#### Trial in Cudgen, Australia (NSW), 2005

Yields (ton/ha)



Highest yields and income were obtained with Multicote<sup>®</sup> Agri at 75% of conventional rates.



# **Application recommendations**



	Application Rate % of local practice			% coated nutrients			
	Ν	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	Ν	K <sub>2</sub> O		
Light soil	60-70	100	70	70	-	Up to 50	
Heavy soil	70-90	100	80	50-60	-	Up to 50	



# **Application recommendations**



- The recommendations should be considered as a general guide only. Actual application rates and percentage of coated nutrients may be up to 10% more or 10% less than the values given in the able.
- The exact rates, timing and mode of application should be determined according to specific crop needs, soil and water conditions, and the grower's experience.
- Consult Haifa agronomist to customize the optimal fertilization program for your needs





# **Thank You**

Join-up our knowledge community www.haifa-group.com/community



