



#### **POTATOES**

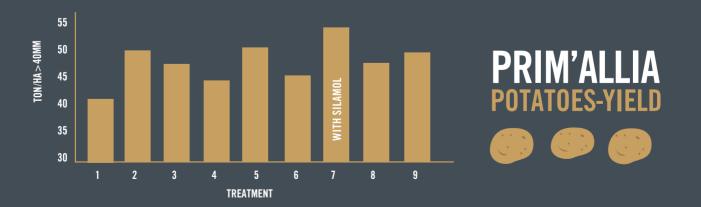
SILAMOL is consistently demonstrated as a powerful tool for potato growers. The silicic acid in SILAMOL has a positive affect on mineral uptake and assimilation which overall increases plant health and natural resistance. Potato growers see better internal water distribution and overall tuber structure. This leads to longer shelf-life, better commercial sorting and reduced rotting. Typical benefits include:

- Better commerical sorting
- Overall yield increase
- Better mineralization and nutrition
- · Reduced rot
- Reduced pesticide residues

# SATURNA 2003 LAON, FRANCE

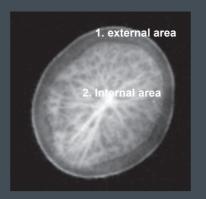
TOTAL YIELD	Ton/ha > 40mm
(1) CONTROL	40.56
(2) MAN + SHIRIAN + SERE + IODUS	49.12
(3) MAN + SHIRIAN + SERE + EPSOTOP (Mg)	46.96
(4) MAN + SHIRIAN + SERE + MICROTOP (Mg + B)	44.46
(5) MAN + SHIRIAN + SERE + YEALD	49.72
(6) MAN + SHIRIAN + SERE + PA	45.42
(7) MAN + SHIRIAN + SERE + SILAMOL	53.42
(8) MAN + SHIRIAN + EP + PA	48.78
(9) MAN + SHIRIAN + EP + IODUS	50.92





These affects are more or less pronounced depending upon climate, variety, and applications. Many crop protection and nutrition products are designed to demonstrate a single visible effect. SILAMOL is designed to build a healthier plant from the inside. This means that some benefits are not immediately visible. We encourage tissue/fruit analysis and careful measurement of various factors in order to quantify the results in your crop.

## MAGNETIC RESONANCE IMAGING



This is a typical MRI image of a potato. One can clearly recognize two areas, plus the thin outermost layer. The zone labeled 1 is a spherical crown darker in color and occupying about  $15\,\%$  of the total sample area. Zone 2 is lighter in color.

The signal intensity is proportional to the water content and its interaction with the dry matter data and to the water mobility in the tuber. Thus, darker pixels have water strongly bound to the cellular substrate, while brighter pixels are characterized by water molecule weakly interacting with the substrate. In other words, darker areas represent higher quality plant matter.

## **VARIETY: FONTANE**

#### CONTROL







### **SILAMOL**







MRI data demonstrate that the use of SILAMOL makes the image intensity more homogenous, in the sense that the water mobility does not vary largely across the SILAMOL treated samples, while control potatoes are characterized by a larger variability. This implies that the water physical organization (i.e. interaction) with the cellular substrate, is quite different for control samples

## SILAMOL INCREASE OF PRODUCTION AND QUALITY OF CONSUMPTION POTATO

		BINTJE SILIFORCE	DIFFERENCE	EXTRA BENEFIT PER HA
YIELD >35MM	54.4 t	54.4 t	+ 6 % MORE YIELD	376 EURO
WATER CONTENT	3.2 %	2.4 %	+ 25 % MORE DRY Matter	10 EURO
ROT	1.5 %	0.7 %	- 53 % LESS ROT	57.50 EURO

TOTAL EXTRA BENEFIT: 443.50 EURO PER HA