

# SUL-PO-MAG<sup>®</sup>

Potassium Magnesium Sulfate

## Sul-Po-Mag Improves Growth and Increases Yield of Potatoes and Cabbage

### WITH 200 KG/HA SUL-PO-MAG:

Potato yields increased 375% over control ...over 80% when compared to a recommended farmer practice.

### WITH 300 KG/HA SUL-PO-MAG:

Cabbage yields increased over 400% over control... over 145% when compared to a recommended farmer practice. Significantly enhanced compactness of cabbage head.



### Background

The effect of Sul-Po-Mag on the growth and yield of white potato and cabbage was evaluated at the College of Agriculture, Benquet State University, La Trinidad, Benquet, Philippines (1999-2000). In both cases, Sul-Po-Mag improved growth and increased yields over the control and farmer recommended rates.

### Potatoes

The tuber yield was increased with the application of Sul-Po-Mag combined with the application of the recommended rate of NPK using 14-14-14. The optimum level of Sul-Po-Mag to obtain optimum tuber yield in white potato was 200 kg/ha plus recommended rate of 14-14-14. (Table 1)

Table 1:

#### Tuber Yield as Affected by Sul-Po-Mag (SPM)

Treatment	kg/10m <sup>2</sup>
Control	6.63
Farmer Practice (140-140-140 kg/ha N-P <sub>2</sub> O <sub>5</sub> -K <sub>2</sub> O)	15.93
Farmer Practice + 200 kg/ha Sul-Po-Mag	29.02

The growth of potato plants was also significantly affected by the application of the different rates of Sul-Po-Mag. Plants fertilized with recommended rates of 14-14-14 plus different rates of Sul-Po-Mag were significantly taller than those crops fertilized with recommended rate of 14-14-14 and the control. The tallest plants were observed from potatoes fertilized with the recommended amounts of 14-14-14 in combination with 500 kg Sul-Po-Mag per hectare.

### Cabbage

The study primarily aimed to compare Sul-Po-Mag treated plants with the farmer's practice (240-60-60 kg/ha N-P<sub>2</sub>O<sub>5</sub>-K<sub>2</sub>O), as well as the control.

The solidity of cabbage heads was significantly affected by the application of different levels of Sul-Po-Mag. (Table 2)

Table 2:

#### Solidity of Cabbage Head

Treatment	gm/cm <sup>3</sup>
Farmer Practice	0.55
Farmer Practice + 100 kg/ha Sul-Po-Mag	0.67
Farmer Practice + 200 kg/ha Sul-Po-Mag	0.73
Farmer Practice + 300 kg/ha Sul-Po-Mag	0.97
Farmer Practice + 400 kg/ha Sul-Po-Mag	0.93

The yield was increased with the application of Sul-Po-Mag in combination with the recommended rate of N-P<sub>2</sub>O<sub>5</sub>-K<sub>2</sub>O. In order to obtain the optimum yield of cabbage application, 300 kg/ha Sul-Po-Mag was necessary. (Table 3)

Table 3:

#### Yield of Cabbage as Affected by Sul-Po-Mag (SPM)

Treatment	kg/8m <sup>2</sup>
Control	7.30
Farmer Practice	20.63
Farmer Practice + 300 kg/ha Sul-Po-Mag	29.90

### Summary

Based on these research results:

**For optimum potato yields, the farmer practice + 200 kg/ha Sul-Po-Mag is recommended**

**For optimum cabbage solidity and yield, the farmer practice plus 300 kg/ha Sul-Po-Mag is recommended.**

**Sul-Po-Mag is a high quality source of K, Mg, and S all in the readily-available water-soluble sulfate form**

Fertilization programs for intensively managed potatoes must be capable of generating both high yield and quality. Sul-Po-Mag fits well into such a plant nutrition program. This high quality fertilizer contains both a low salt index and a low chloride content.

This high analysis product contains 55% nutrients: 22% K<sub>2</sub>O, 11 % Mg and 22% S. In the granular form it is well suited for bulk blending as well as direct application to the soil.