

**Kenya Agricultural Research  
Institute  
National Agricultural Research  
Laboratories**

**EFFECT OF ALGIFOL BIOFERTILIZER ON  
SQUASH YIELDS AND MICROBIAL  
DYNAMICS UNDER GREENHOUSE  
CONDITIONS**

August, 2011





## **Test ALGIFOL on Squash (Courgettes)**

<b>Soil type</b>	<b>% Sand</b>	<b>% Silt</b>	<b>% Clay</b>	<b>Textural Class</b>	<b>Representative Soil type</b>
Kabete	14	20	66	Clay	Humic Nitisols
Mwea	8	22	70	Clay	Vertisols
Machakos	32	30	38	Clay Loam	Acrisols

**3 major soil type in Kenya**

- Algifol™ in combination with inorganic NPK fertilizers gave a yield increase of about **57%** in the **3 soil types**
- In the soil from Mwea, Algifol™ significantly increased the yields by **about 610%** when applied in combination with NPK fertilizers

**Fresh weight of squash shoots**

Algifol™ combined with NPK increased the number of fruit by about **50%** in the three soils.

**Number of fruit**

Algifol™ sprayed onto plants planted with NPK and manure (5 t ha<sup>-1</sup>) **increased yields by 116 %** in the three soils.

**Fresh weight of fruits**

- High chlorophyll readings are indicative of higher nitrogen sufficiency which is positively related to crop yields
- highest increase attributed to Algifol™ of **92%** was observed in the Mwea soil in the NPK + Algifol™ treatment
- Algifol™ apparently enhanced nitrogen sufficiency to the crop and ultimately increased yields.

**Chlorophyll**

Algifol™ with NPK fertilizers  
more than **doubled** the  
number of fruit

Algifol™ with NPK+ manure  
increased the number and  
the weight of fruit **four fold**

**Conclusion**



## **Algifol™ significantly increased**

- number and weight of squash fruit
- plant height, the number and length of leaves, chlorophyll content
- plant biovolume,
- microbial activity and populations of bacteria, actinomycetes and fungi in the soil

....particularly when applied in combination with either manure or inorganic fertilizers

**CONCLUSIONS &  
RECOMMENDATIONS**

It can therefore be concluded that Algifol™ is not harmful to indigenous soil microbes and that use of Algifol™ as a foliar fertilizer is beneficial to crop production

**Environment Effect**

**May we thank**

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of environment.**

**Neomed Pharma GmbH, Germany**  
**[www.algifol.com](http://www.algifol.com)**

**Algifol is a German Product**