

## **ZAPPA™ – The Rice Seeds Germination Enhancer and the Control of “Padi Angin” Infestation**

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The government aspiration to increase rice yield up to 10 t/ha may be hampered if infestation of “padi angin” or weedy rice cannot be controlled. Serious infestation of weedy rice had been reported to reduce rice yield up to 75%. *ZAPPA* or “*Zap Padi Angin*” is specially formulated as paddy seed treatment to enhance rapid seed germination for direct seeding rice grown under aerobic and anaerobic systems. *ZAPPA* treated paddy seeds had shown that the root and shoot growth of 3-days old rice seedling had increased about 120% and 90% respectively. Paddy seeds treated with active oxygen in the *ZAPPA* were able to grow vigorously under anaerobic direct seedling (about 5 cm water depth), thereby, delayed or suffocated the untreated weedy rice present in the soil. The local verification trials of *ZAPPA* conducted on two farmers plot each 1.2 hectares in Sg. Besar, Selangor, which were previously infected with weedy rice had shown a yield increment between 40 – 57%. MARDI researchers in Tg. Karang and Bertam had also evaluated the effectiveness of *ZAPPA* for seed germination and the control of padi angin. The result showed that seeds treated with *ZAPPA* were able to grow at 5 and 15 cm of water depth but tillers number was greatly reduced at 2.5 cm of water depth. Others benefits of using *ZAPPA* were

- i. Reduce rat attach because of standing water
- ii. Conserved water usage (water was not removed after plowing)
- iii. Reduce seed borne diseases,
- iv. Increase seed purity.

Since March 2001, about 40,000 liters of *ZAPPA* were sold. Many farmers had accepted *ZAPPA* for both the aerobic and anaerobic direct seeding due to its effects on seedling vigor that helps to compete with the weeds growth.

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