

ZAPPA™, The Rice Seeds Germination Enhancer

and the Control of "Padi Angin" Infestation

Award Winner



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 "Zapa 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 increased the root and shoot growth of 3-days old rice seedlings to about 130% and 62%, respectively. Paddy seeds treated with active oxygen in ZAPPA were able to grow vigorously under anaerobic direct seeding (about 5 cm water depth), thereby, delayed or suffocated the untreated weedy rice seeds 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 and 57%. MARDI researchers in Tg. Karang and Bertam had also evaluated effectiveness of ZAPPA for seed germination and the control of the *padi angin*.



ZAPPA™—convenient 1 & 4 lits packing



The result showed that seeds treated with ZAPPA were able to grow at 5 and 15 cm of water depth. Others benefits of using ZAPPA includes that it reduce weeds problem, reduces rat attack due to standing water, conserves water usage (water is not removed after ploughing), reduces seed borne diseases, and increases seed purity. Since March 2001, about 75,000 lits of ZAPPA has been sold. Many farmers have accepted ZAPPA for both the aerobic and anaerobic direct seeding due to it effects on seedling vigour that helps to compete with the weed growth.

ZAPPA has received three awards; Gold Medal for Invention and Research Exhibition Awards 2002, UPM, Silver Medal for Invention and Innovation Exhibition. Ministry of Science, Technology and Environment of Malaysia. 2-4 November 2002 and a Silver Medal in the 32nd International Exhibition of Inventions, New Techniques and Products at Geneva, 2004.

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