

**PERBAIKAN TEKNOLOGI BUDIDAYA PADI (*Oryza sativa* L.)  
METODE SRI (*THE SYSTEM OF RICE INTENSIFICATION*)  
MELALUI OPTIMASI LAHAN  
SERTA PENGELOLAAN POPULASI DAN GULMA**



**Pembimbing :**  
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**PROGRAM PASCASARJANA**  
**UNIVERSITAS ANDALAS**

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**Oleh: Arman Effendi AR**

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**Abstrak**

Strategi pembangunan pertanian adalah peningkatan hasil tanaman berwawasan lingkungan. Metode SRI (*The System of Rice Intensification*) merupakan budidaya tanaman padi sawah yang telah sesuai dengan strategi tersebut. Metode SRI melakukan efisiensi penggunaan air dan meningkatkan produktivitas padi. Penelitian dilaksanakan di Kampus Fakultas Pertanian Universitas Riau Pekanbaru dan di lahan sawah Balai Benih Induk Pantai Marpoyan Pekanbaru. Tujuan penelitian ini adalah memperbaiki lingkungan tumbuh akar dengan menjaga *aerasi* tanah tetap baik melalui pengelolaan pemberian air sehingga dapat menekan pembentukan jaringan arenkim dan mendapatkan paket teknologi SRI melalui optimasi lahan, pengelolaan populasi dan pengendalian gulma sehingga dapat meningkatkan produktivitas padi sawah. Hasil penelitian adalah pembentukan jaringan arenkim tidak tergantung dengan tinggi genangan dan nilai kadar air tanah, dan teknik budidaya tanaman padi dengan menggunakan tinggi permukaan air 10 cm di bawah permukaan tanah, jarak saluran/parit 2 m dengan dosis kompos 10 ton/ha, serta jarak tanam 20 x 20 cm dan 20 x 25 cm dengan frekuensi pengendalian gulma tiga kali, dapat meningkatkan hasil kurang lebih 40-50%.

*Keyword:* SRI (*The System of Rice Intensification*); arenkim; *aerasi* tanah; pengelolaan air; padi.

# **IMPROVEMENTS OF SRI (THE SYSTEM OF RICE INTENSIFICATION) METHOD THROUGH LAND OPTIMIZATION AND MANAGEMENT OF RICE POPULATION AND WEEDS**

**by Arman Effendi AR**

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## **Abstract**

The strategy of agricultural development is the enhancement of environmentally sound crops. The SRI method (The System of Rice Intensification) is a cultivation of paddy that has been in accordance with the strategy. The SRI method performs water use efficiency and increases rice productivity. The objective of this research was to improve the growing environment by maintaining good soil aeration through the management of water supply that it could suppress the formation of aerenchyma system and obtain the SRI technology package through the optimization of land, population management and weed control, hereby would increase the productivity of paddy. The research was conducted in Campus of Agricultural Faculty of Riau University Pekanbaru, and in paddy field of Central Seed Hall in Pantai Marpoyan, Pekanbaru. The result indicated that the formation of aerenchyma system did not depend on the water level and soil water content. Rice cultivation technique using water surface level 10 cm below ground level, ditch distance 2 m with compost dose 10 ton/ha, and planting distance 20x20 cm and 20x25 cm with weed control frequency three times during planting season could increase the yield approximately 40-50%.

*Keyword:* SRI (The System of Rice Intensification); aerenchyma; soil aeration; water management; rice.

