

**Sistem Pendukung Keputusan Pemilihan Bibit Unggul Padi Dengan Metode
Simple Additive Weight (SAW) Berdasarkan Fase Panen Dan Jenis Bibit**

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ABSTRAK

Petani padi di Indonesia, khususnya di Kabupaten Bondowoso, masih mengalami kesulitan dalam memilih bibit unggul karena keterbatasan informasi dan maraknya bibit palsu. Penelitian ini bertujuan membangun Sistem Pendukung Keputusan (SPK) berbasis web menggunakan metode Simple Additive Weighting (SAW) serta menguji akurasi sistem dalam merekomendasikan bibit terbaik. Metode SAW diterapkan dengan empat kriteria: produktivitas (bobot 0,40), umur panen (0,30), ketahanan hama (0,20), dan harga (0,10). Sistem diimplementasikan dengan PHP Laravel dan MySQL. Pengujian dilakukan melalui Black Box Testing oleh penyuluh pertanian dan User Acceptance Testing (UAT) oleh petani. Hasil penelitian menunjukkan: (1) Seluruh fungsi sistem berjalan 100% valid berdasarkan Black Box Testing; (2) Akurasi metode SAW mencapai 100% sesuai validasi pakar, dengan varietas Inpari 32 sebagai rekomendasi tertinggi (nilai preferensi 0,6455) disusul Mekongga (0,6389) dan IR64 (0,6022); (3) Tingkat kelayakan sistem berdasarkan UAT mencapai 90%. Dengan demikian, sistem ini efektif, akurat, dan layak digunakan petani untuk memilih bibit padi unggul secara objektif.

Kata Kunci: Sistem Pendukung Keputusan, Bibit Padi Unggul, SAW, Akurasi, UAT.

**Sistem Pendukung Keputusan Pemilihan Bibit Unggul Padi Dengan Metode
Simple Additive Weight (SAW) Berdasarkan Fase Panen Dan Jenis Bibit**
*(A Decision Support System for Selecting High-Yielding Rice Varieties Using the
Simple Additive Weight (SAW) Method Based on Harvest Phase and Variety Type)*
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ABSTRACT

Indonesian farmers, particularly in Bondowoso Regency, often face difficulties in selecting superior rice seeds due to limited access to information and the widespread circulation of counterfeit seeds. This research aims to develop a web-based Decision Support System (DSS) using the Simple Additive Weighting (SAW) method and to evaluate the system's accuracy in recommending the best rice seeds. The SAW method was applied using four criteria: productivity (weight 0.40), harvest age (weight 0.30), pest resistance (weight 0.20), and price (weight 0.10). The system was built using PHP Laravel and MySQL. Testing was conducted through Black Box Testing by agricultural extension officers and User Acceptance Testing (UAT) by farmers. The results showed that: (1) All system functions were 100% valid based on Black Box Testing; (2) The accuracy of the SAW method reached 100% according to expert validation, with the Inpari 32 variety being the top recommendation (preference score 0.6455), followed by Mekongga (0.6389) and IR64 (0.6022); (3) The system feasibility level based on UAT reached 90%. Therefore, this system is effective, accurate, and suitable for farmers to use in selecting superior rice seeds objectively.

Keywords: Decision Support System, Superior Rice Seeds, SAW, Accuracy, UAT.