

ABSTRAK

Penelitian ini berfokus pada implementasi pendekatan *Lean* di sektor agribisnis untuk meningkatkan produktivitas pekerja dan mereduksi waktu yang tidak bernilai tambah pada proses produksi bibit stroberi di Ija Mulyana *Strawberry Nursery*. Permasalahan utama yang dihadapi perusahaan adalah ketidakmampuan memenuhi permintaan pasar, di mana pada tahun 2024, sebanyak 17.260 bibit (9,86%) tidak terpenuhi dari total permintaan 175.000 bibit, mengakibatkan kerugian *opportunity cost* sebesar Rp674.600.000. Untuk menganalisis aliran proses dan mengidentifikasi pemborosan, penelitian ini menggunakan *Value Stream Mapping* (VSM) dan *Process Activity Mapping* (PAM). PAM secara spesifik digunakan untuk mengklasifikasikan aktivitas menjadi *Value Added* (VA), *Non-Value Added* (NVA), dan *Necessary Non-Value Added* (NNVA), serta mengidentifikasi jenis *waste* berdasarkan konsep 7 pemborosan. Hasil analisis menunjukkan bahwa 8,21% dari total waktu proses merupakan aktivitas tidak bernilai tambah, didominasi oleh *transportation* dan *overprocessing*, yang secara signifikan menghambat produktivitas pekerja. Berdasarkan temuan ini, dirumuskan usulan perbaikan berbasis filosofi *kaizen* yang meliputi: penggantian pupuk AB Mix dengan pupuk *granule & crystal* dan penggunaan timbangan digital untuk mengurangi *overprocessing* pada persiapan pupuk; penggantian pasak bambu dengan plastik *reusable* untuk efisiensi pembibitan; serta penggunaan *diesel water pump machine* untuk mereduksi *transportation* pada aplikasi pupuk dan penyemprotan. Selain itu, diusulkan penggabungan aktivitas *cultivation of seedlings* dengan proses *watering*, *vegetative fertilizing*, *generative fertilizing*, *pruning*, dan *spraying insecticide & fungicide* untuk mengoptimalkan pemanfaatan waktu pekerja. Implementasi usulan perbaikan ini diproyeksikan akan meningkatkan *Process Cycle Efficiency* dari 91,71% menjadi 94,89%, melalui optimalisasi aktivitas VA, eliminasi NVA, dan reduksi NNVA.

Kata Kunci: *Lean*, Agribisnis, Pemborosan (*waste*), *Process Cycle Efficiency*, *Value Stream Mapping*, *Process Activity Mapping*, *Strawberry Nursery*.

ABSTRACT

This research focuses on the implementation of Lean approaches in the agribusiness sector to increase worker productivity and reduce non-value-added time in the strawberry seed production process at Ija Mulyana Strawberry Nursery. The main problem faced by the company is the inability to meet market demand, where in 2024, as many as 17,260 seedlings (9.86%) will not be fulfilled out of the total demand for 175,000 seedlings, resulting in an opportunity cost loss of IDR 674,600,000. To analyze the process flow and identify waste, this study uses Value Stream Mapping (VSM) and Process Activity Mapping (PAM). PAM is specifically used to classify activities into Value Added (VA), Non-Value Added (NVA), and Necessary Non-Value Added (NNVA), as well as identify waste types based on the concept of 7 waste. The results of the analysis showed that 8,21% of the total processing time was a non-value-added activity, dominated by transportation and overprocessing, which significantly hampered worker productivity. Based on these findings, proposed improvements based on the kaizen philosophy were formulated which include replacing AB Mix fertilizer with granule & crystal fertilizer and using digital scales to reduce overprocessing in fertilizer preparation; replacing bamboo pegs with reusable plastic for nursery efficiency; and using diesel water pump machines to reduce transportation in fertilizer and spraying applications. In addition, it is proposed to combine cultivation activities of seedlings with processes watering, vegetative fertilizing, generative fertilizing, pruning, and spraying insecticide & fungicide to optimize the utilization of workers' time. The implementation of this proposed improvement is projected to increase Process Cycle Efficiency from 91,71% to 94,89%, through optimizing VA activities, eliminating NVA, and reducing NNVA.

Keywords: *Lean, Agribusiness, Waste, Process Cycle Efficiency, Value Stream Mapping, Process Activity Mapping, Strawberry Nursery.*