

RINGKASAN

Produksi padi ketan di Indonesia belum mampu memenuhi permintaan yang terus meningkat, sehingga mendorong impor dari negara lain seperti Vietnam dan Thailand. Salah satu solusi yang diusulkan adalah pemanfaatan lahan tergenang, seperti rawa dan bantaran sungai yang masih memiliki potensi besar namun sering kali menghadapi kendala agronomis. Teknologi seperti metode tanam apung dinilai mampu mengatasi tantangan genangan air yang fluktuatif di lahan tersebut. Penelitian bertujuan untuk 1) mempelajari pengaruh perbedaan metode tanam dan variasi jarak tanam terhadap pertumbuhan tanaman padi ketan varietas lusi di lahan tergenang dan 2) menganalisis perbedaan hasil pertumbuhan tanaman padi ketan varietas lusi pada berbagai kombinasi metode tanam dan jarak tanam di lahan tergenang.

Penelitian dilaksanakan pada bulan Januari sampai Juni 2025 di lahan tergenang Kecamatan Rawalo, Kabupaten Banyumas dan Laboratorium Agronomi, Laboratorium Ilmu Tanah, Laboratorium Terpadu 1 IAB, Universitas Jenderal Soedirman. Penelitian menggunakan Rancangan Acak Lengkap (RAL) dengan dua faktor, yaitu metode tanam (konvensional dan apung) serta jarak tanam ($20\text{ cm} \times 20\text{ cm}$ dan $30\text{ cm} \times 30\text{ cm}$) yang dikombinasikan menjadi empat perlakuan dan masing-masing diulang tiga kali. Variabel yang diamati meliputi tinggi tanaman, jumlah daun, jumlah anakan, jumlah anakan produktif, panjang akar, bobot akar basah, dan bobot akar kering. Data dianalisis menggunakan uji ANOVA dan uji lanjut DMRT pada taraf signifikansi 5% untuk mengetahui pengaruh signifikan dari perlakuan terhadap parameter pertumbuhan tanaman.

Hasil penelitian menunjukkan bahwa perbedaan metode tanam dan variasi jarak tanam memberikan pengaruh yang signifikan terhadap pertumbuhan tanaman padi ketan varietas lusi di lahan tergenang. Metode tanam konvensional menghasilkan tinggi tanaman, jumlah anakan, jumlah daun, dan jumlah anakan produktif yang lebih tinggi dibandingkan metode rakit apung. Metode rakit apung menunjukkan keunggulan pada parameter panjang akar, bobot akar basah, dan bobot akar kering. Variasi jarak tanam juga memberikan pengaruh yang signifikan. Jarak tanam $30\text{ cm} \times 30\text{ cm}$ menghasilkan jumlah anakan, jumlah daun dan parameter akar yang lebih baik dibandingkan dengan jarak tanam $20\text{ cm} \times 20\text{ cm}$. Kombinasi perlakuan T1J2 (metode tanam konvensional dengan jarak tanam $30\text{ cm} \times 30\text{ cm}$) terbukti memberikan hasil paling optimal pada sebagian besar variabel pertumbuhan tanaman. Hasil penelitian memberikan rekomendasi teknis yang dapat diterapkan petani untuk meningkatkan produktivitas padi ketan pada lahan tergenang secara berkelanjutan.

SUMMARY

Rice production in Indonesia has not been able to meet the increasing demand, leading to imports from other countries such as Vietnam and Thailand. One proposed solution is the utilization of flooded land, such as swamps and riverbanks, which still have great potential but often face agronomic constraints. Technologies such as floating cultivation methods are considered capable of overcoming the challenges of fluctuating water levels in these areas. The research aims to 1) study the effects of different planting methods and planting distances on the growth of Lusi variety glutinous rice in flooded land and 2) analyze the differences in the growth of Lusi variety glutinous rice across various combinations of planting methods and distances in flooded land.

The study was conducted from January to June 2025 on flooded land in Rawalo Subdistrict, Banyumas Regency, and at the Agronomy Laboratory, Soil Science Laboratory, and Integrated Laboratory 1 IAB, Jenderal Soedirman University. The study used a Completely Randomized Design (CRD) with two factors: planting method (conventional and floating) and planting distance (20 cm × 20 cm and 30 cm × 30 cm), combined into four treatments, each repeated three times. The observed variables included plant height, number of leaves, number of tillers, number of productive tillers, root length, fresh root weight, and dry root weight. Data were analyzed using ANOVA and DMRT post-hoc tests at a 5% significance level to determine the significant effects of treatments on plant growth parameters.

The results showed that differences in planting methods and planting distances significantly affected the growth of Lusi variety glutinous rice in flooded fields. The conventional planting method produced higher plant height, number of tillers, number of leaves, and number of productive tillers compared to the floating raft method. The floating raft method showed advantages in root length, fresh root weight, and dry root weight. Planting distance variations also had a significant effect. A planting distance of 30 cm × 30 cm resulted in better tiller number, leaf number, and root parameters compared to a planting distance of 20 cm × 20 cm. The T1J2 treatment combination (conventional planting method with a planting distance of 30 cm × 30 cm) proved to yield the most optimal results for most plant growth variables. The research results provide technical recommendations that farmers can apply to sustainably increase the productivity of glutinous rice in flooded fields.