

#### 4. KESIMPULAN

Berdasarkan hasil metrik evaluasi yang telah dilakukan maka dapat disimpulkan beberapa hal sebagai berikut:

1. Model YOLOv8 yang dilatih dengan 100 epoch dan batch ukuran 8 mampu mengklasifikasikan kesegaran buah (*fresh, semirotten, rotten*) dengan akurasi rata-rata 88%.
2. Evaluasi pada metrik umum menunjukkan presisi 74% dan recall 75% pada epoch ke-100. Sehingga Rata-rata presisi keseluruhan model dalam mendeteksi kesegaran buah adalah sekitar 73%.

#### 5. SARAN

Model YOLOv8 yang dilatih dengan 100 *epoch*, 8 *batch* dan 5215 gambar memiliki tingkat akurasi sebesar 88%, ini menunjukkan dengan *epoch* yang terbatas model object YOLOv8 dapat masih bersaing dengan algoritma deteksi lainnya seperti gabungan ResNet, DenseNet, MobileNetV2, NASNet, dan EfficientNet yang memiliki akurasi sebesar 95,2 % [11]. Kemudian *Multilayer Perceptron* (MLP) dengan akurasi 97,2% [12], arsitektur Alexnet dengan akurasi 99.1% [13] dan YOLOv5 dengan akurasi sebesar 94.5% [14]. Oleh karena itu percobaan *epoch* dan *batch* yang lebih tinggi memiliki potensi menjadi penelitian selanjutnya, untuk dapat mengembangkan model YOLOv8 untuk deteksi buah dengan akurasi yang lebih tinggi.

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