```
Model Report: CNN-BiLSTM Ensemble Field-Level (Inference)
=================================================
Generated: 2026-02-10 13:43:13
Script: /home/mmann1123/Documents/github/South_Africa_Crop_Comp/deep_learn/src/Deep Learning/Pixel_Field_Lev

Data Split:
  train_count: 2985
  val_count: 332
  test_count: 830
  random_seed: 42
  split_method: fid-wise (field-level aggregation)

Metrics (test set):
  Accuracy:      0.8313
  Cohen Kappa:   0.7620
  F1 Weighted:   0.8289
  F1 Macro:      0.7767

Hyperparameters:
  num_models: 5
  conv_filters: 64
  lstm_hidden: 64
  kernel_size: 5
  dropout: 0.3
  aggregation: majority vote by FID
```

Per-Class Metrics

Class	Precision	Recall	F1-Score	Support
Barley	0.735	0.814	0.773	140
Canola	0.931	0.879	0.904	107
Lucerne/Medics	0.913	0.942	0.927	380
Small grain grazing	0.681	0.566	0.618	83
Wheat	0.681	0.642	0.661	120

Confusion Matrix