Model Report: L-TAE Temporal Attention
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Script: /home/mmann1123/Documents/github/South_Africa_Crop_Comp/deep_learn/src/Deep Learning/Pixel_Field_Lev

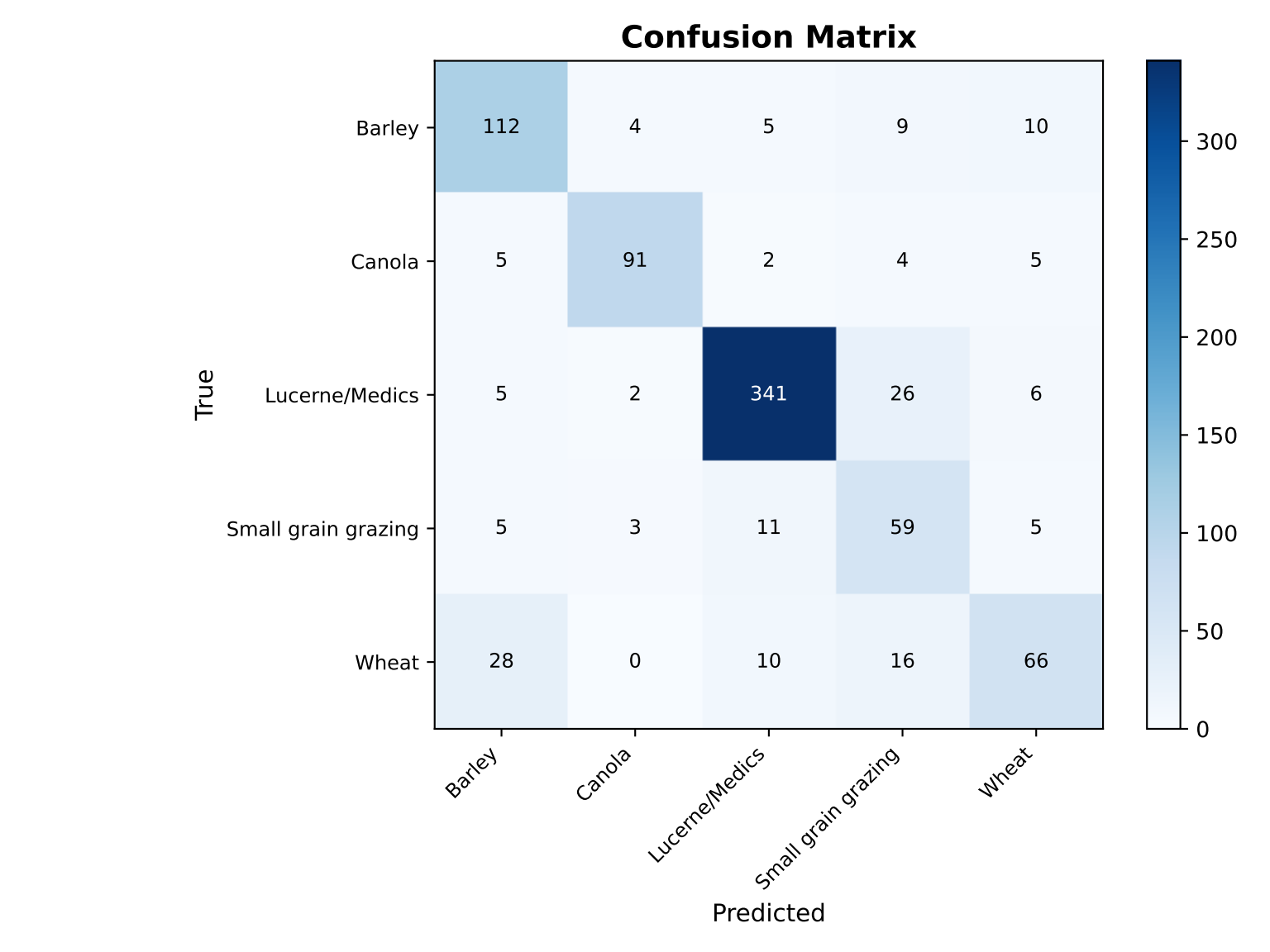
Data Split:
  train_count: 4802658
  val_count: 1205790
  test_count: 1531914
  random_seed: 42
  split_method: fid-wise

Metrics (test set):
  Accuracy: 0.8060
  Cohen Kappa: 0.7305
  F1 Weighted: 0.8082
  F1 Macro: 0.7541

Hyperparameters:
  architecture: L-TAE (Lightweight Temporal Attention Encoder)
  d_model: 64
  n_head: 16
  d_k: 4
  dropout: 0.2
  lr: 0.001
  epochs: 50
  patience: 8
  batch_size: 1024
  n_models: 5
  seeds: [42, 101, 202, 303, 404]
  temporal_order: chronological
  positional_encoding: sinusoidal (actual month positions)

Per-Class Metrics

Class	Precision	Recall	F1-Score	Support
Barley	0.723	0.800	0.759	140
Canola	0.910	0.850	0.879	107
Lucerne/Medics	0.924	0.897	0.911	380
Small grain grazing	0.518	0.711	0.599	83
Wheat	0.717	0.550	0.623	120


Confusion Matrix
Barley
Canola
Lucerne/Medics
Small grain grazing
Wheat
True
112 4 5 9 10
5 91 2 4 5
5 2 341 26 6
5 3 11 59 5
28 0 10 16 66
Barley
Canola
Lucerne/Medics
Small grain grazing
Wheat
Predicted
300
250
200
150
100
50
0