

Model Report: TempCNN Temporal Conv

=====

Generated: 2026-02-13 11:08:54

Script: /home/mmann1123/Documents/github/South_Africa_Crop_Comp/deep_learn/src/Deep Learning/Pixel_Field_Level

Data Split:

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

Metrics (test set):

Accuracy: 0.7952
Cohen Kappa: 0.7165
F1 Weighted: 0.7992
F1 Macro: 0.7434

Hyperparameters:

architecture: TempCNN (Pelletier et al. 2019)
conv_layers: 64→64→128
kernel_sizes: 5, 5, 3
pooling: AdaptiveAvgPool1d
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

Per-Class Metrics

Class	Precision	Recall	F1-Score	Support
Barley	0.693	0.807	0.746	140
Canola	0.929	0.850	0.888	107
Lucerne/Medics	0.928	0.879	0.903	380
Small grain grazing	0.495	0.651	0.562	83
Wheat	0.680	0.567	0.618	120

Confusion Matrix

