

Model Report: TabNet Field-Level (xr_fresh)

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Script: /home/mmann1123/Documents/github/South_Africa_Crop_Comp/deep_learn/src/Classical Machine Learning/Fi

Data Split:

train_count: 2653
val_count: 664
test_count: 830
random_seed: 42
split_method: fid-wise (field-level)

Metrics (test set):

Accuracy: 0.6265
Cohen Kappa: 0.4612
F1 Weighted: 0.5869
F1 Macro: 0.4841

Hyperparameters:

n_d: 64
n_a: 64
n_steps: 5
gamma: 1.5
n_independent: 2
n_shared: 2
lr: 0.001
scheduler: StepLR(step=10, gamma=0.9)
max_epochs: 100
patience: 10
batch_size: 1024
n_models: 5
seeds: [42, 101, 202, 303, 404]
features: xr_fresh time-series (field-level mean)

Per-Class Metrics

Class	Precision	Recall	F1-Score	Support
Barley	0.466	0.543	0.502	138
Canola	0.783	0.540	0.639	87
Lucerne/Medics	0.736	0.940	0.825	352
Small grain grazing	0.222	0.023	0.041	88
Wheat	0.433	0.394	0.413	165

Confusion Matrix

