Name of Paper	Used Approach	Most Important Parameters/Hyperparameters
"Leaf and spike wheat disease detection & classification using an improved deep convolutional architecture"	24-layer custom CNN (21 conv + 3 dense layers) with: - ReLU/LeakyReLU activations - Dropout regularization - Data augmentation - Adam optimizer	Parameters: - Input size: 224×224 RGB - Trainable params: ~650M Hyperparameters: - Batch size: 32 - Epochs: 1000 (early stopping) - Dropout rates: 0.25 (conv), 0.5 (dense) - Learning rate: Adam default (adaptive) - Augmentation: Rotation (20°), shifts (20%), flips
Lightweight Multiscale CNN Model for Wheat Disease Detection	Inception-ResNet-CE (IRCE) with CBAM + ECA attention, Adam optimizer, data augmentation	Parameters: - Input size: 224×224×3 - Trainable params: 4.24M - FLOPs: 0.84G Hyperparameters: - Batch size: 64 - Epochs: 70

		- Initial LR: 0.001 (StepLR decay: *gamma=0.01, step_size=25*) - Weight decay (L2): 0.001 - Optimizer: Adam (vs. SGD/RMSprop)
Wheat Leaf Disease Detection: A Lightweight Approach with Shallow CNN Based Feature Refinement	.Hybrid Transfer Learning + Shallow CNN: - Frozen EfficientNetB0 for feature extraction - Custom 3-layer CNN (32, 64, 128 filters) + BatchNorm - Adamax optimizer - Data augmentation (rotation, flips, zoom) - Early stopping (patience=3)	Parameters: - Input size: 256×256 RGB - Trainable params: 6M - Model size: 51 MB Hyperparameters: - Batch size: 30 - Epochs: 100 (early stopping) - Dropout rate: 0.5 - Learning rate: 1e-3 (adaptive reduction) - Loss: Categorical cross-entropy - Augmentation: Rotation (±20°), shifts (±20%), zoom (0.8–1.2x)