

## Supplementary data

**Table S1.** List of abbreviations used in the article

Abbreviation	Full Form
AI	Artificial intelligence
ML	Machine learning
DL	Deep learning
CNN	Convolutional neural network
DNN	Deep neural network
ANN	Artificial neural network
SVM	Support vector machine
NB	Naïve bayes
KNN	K-nearest neighbour
MLP	Multi-layer perceptron
YOLO	You only look once
VGGNet / VGG16 / VGG19	Visual geometry group network
ResNet	Residual neural network
EfficientNet	Efficient neural network
MobileNet	Lightweight Convolutional Neural Network by Google
SSD	Single shot multibox detector
GIST	Global image descriptor
GLCM	Gray Level Co-occurrence Matrix
RGB	Red green blue
LSTM	Long short-term memory
IoAT	Internet of Agricultural Things
R-CNN / Fast R-CNN / Faster R-CNN	Region-based Convolutional Neural Network
HFDLNet	Hybrid Feature-based Deep Learning Network

FFT	Fast fourier transform
STFT	Short-time fourier transform
LPC	Linear predictive coding
PID	Proportional Integral Derivative (sensor)
EMR	Electromagnetic radiation
NIR	Near-infrared
RWC	Relative water content
IoT	Internet of Things
UAV	Unmanned aerial vehicle
GPS	Global positioning system
GSM	Global System for Mobile Communication
IPM	Integrated pest management
ICAR	Indian Council of Agricultural Research
NABARD	National Bank for Agriculture and Rural Development
BFSI	Banking, Financial Services and Insurance
FMCG	Fast-moving consumer goods
FFT	Fast fourier transform
ORB	Oriented FAST and Rotated BRIEF
HOG	Histogram of oriented gradients