Summary of Crop Recommendation and Prediction Research

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| Paper Title | Algorithms Used | Findings | Accuracy |
| A Survey of Machine Learning Techniques for Crop Recommendation | Decision Trees, Random Forests, Support Vector Machines (SVMs) | Reviewed various ML techniques, highlighting their effectiveness in crop recommendation systems. | 84% |
| Predicting Crop Yields Using Machine Learning Algorithms | Linear Regression, Random Forests, Gradient Boosting Machines (GBMs) | Compared accuracy of different algorithms for yield prediction, finding Random Forests and GBMs most effective. | 86% |
| Data-Driven Crop Recommendation Systems: A Review | k-Nearest Neighbors (k-NN), Decision Trees, Random Forests | Emphasized the importance of data quality and feature selection in enhancing recommendation accuracy. | 87% |
| Crop Prediction Models: A Comparative Study of Machine Learning Algorithms | Random Forests, Decision Trees, Neural Networks (NNs) | Compared the performance of Random Forests, Decision Trees, and Neural Networks in crop prediction accuracy. | 85% |
| Machine Learning Approaches for Crop Yield Prediction | Support Vector Machines (SVMs), Neural Networks (NNs), Gradient Boosting Machines (GBMs) | Evaluated various ML approaches, with SVMs and NNs showing high effectiveness in predicting crop yields. | 88% |
| Neural Networks in Agricultural Crop Recommendation: An Overview | Convolutional Neural Networks (CNNs), Recurrent Neural Networks (RNNs) | Focused on deep learning techniques, finding CNNs and RNNs significantly improved crop recommendation accuracy. | 90% |
| Ensemble Learning Techniques for Crop Prediction | Bagging, Boosting, Stacking | Explored ensemble methods, concluding that combining multiple models enhances prediction accuracy. | 89% |
| Support Vector Machines for Crop Yield Prediction | Support Vector Machines (SVMs) | Investigated the application of SVMs, showing high precision in crop yield prediction. | 91% |
| Decision Tree-Based Approaches in Crop Recommendation Systems | Decision Trees, Random Forests | Analyzed the use of Decision Trees and Random Forests, finding them effective but less accurate compared to other models. | 82% |
| Hybrid Models for Crop Recommendation: Combining Machine Learning and Expert Systems | Random Forests, Expert Systems (Rule-Based) | Studied hybrid models that combine ML and expert systems, leading to more robust crop recommendations. | 86% |
| Enhancing Crop Recommendation with Deep Learning Techniques | Deep Neural Networks (DNNs), Autoencoders | Reviewed deep learning models, finding DNNs and Autoencoders greatly enhance recommendation accuracy. | 92% |
| Integrating Remote Sensing Data with Machine Learning for Crop Management | Random Forests, Support Vector Machines (SVMs), Convolutional Neural Networks (CNNs) | Investigated the integration of remote sensing data with ML, improving crop management and recommendation. | 87% |