|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Model** | **Precision** | **Recall** | **F1 Score** | **Accuracy** |
| **Version 1** | 93.604 | 93.450 | 93.427 | 93.450 |
| **Version 2** | 98.093 | 98.062 | 98.056 | 98.062 |
| **Model 2** | 98.555 | 98.523 | 98.519 | 98.523 |
| **Resnet** | 85.995 | 86.070 | 85.948 | 86.070 |
| **Alex Net** | 81.835 | 73.800 | 73.534 | 73.800 |
| **Inception V3** | 96.411 | 96.125 | 96.113 | 96.125 |
| **Vgg16** | 81.226 | 80.904 | 80.771 | 80.904 |

**Enhanced And Augmented Dataset Results:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Model** | **Precision** | **Recall** | **Accuracy** | **F1 score** |
| **Vgg16 Relu** | 81.72 | 69.06 | 80.66 | 80.75 |
| **Model2** | 97.81 | 97.79 | 97.79 | 97.78 |
| **InceptionV3** | 85.83 | 84.53 | 84.32 | 84.53 |
| **Resnet** | 72.55 | 59.66 | 59.66 | 60.53 |
| **Alex Net** | 81.72 | 80.66 | 80.75 | 80.66 |
| **Version 1** | 76.80 | 66.85 | 66.85 | 64.16 |
| **Version 2** | 80.17 | 72.37 | 72.37 | 69.00 |

**Leguminosae 3c Dataset Results:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Model** | **Precision** | **Recall** | **F1 Score** | **Accuracy** |
| **Version 1** | 93.604 | 93.450 | 93.427 | 93.450 |
| **Version 2** | 98.093 | 98.062 | 98.056 | 98.062 |
| **Model 2** | 98.555 | 98.523 | 98.519 | 98.523 |
| **Resnet** | 85.995 | 86.070 | 85.948 | 86.070 |
| **Alex Net** | 81.835 | 73.800 | 73.534 | 73.800 |
| **Inception V3** | 96.411 | 96.125 | 96.113 | 96.125 |
| **Vgg16** | 81.226 | 80.904 | 80.771 | 80.904 |

**Comparative Analysis of Enhanced Leguminosae 3C Models**



|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Model** | **Precision (%)** | **Recall (%)** | **F1 Score (%)** | **Accuracy (%)** |
| **VGG16** | 71.76 | 72.38 | 71.86 | 72.38 |
| **Model2** | 95.43 | 95.03 | 95.04 | 95.03 |
| **Version1** | 82.32 | 77.35 | 75.21 | 77.35 |
| **Inception V3** | 87.07 | 86.74 | 86.79 | 86.74 |
| **Version2** | 86.61 | 86.19 | 86.03 | 86.19 |
| **AlexNet** | 72.32 | 59.67 | 58.22 | 59.67 |
| **ResNet** | 82.24 | 77.86 | 76.04 | 77.86 |

**Augmented Dataset Results.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Model** | **Precision (%)** | **Recall (%)** | **F1 Score (%)** | **Accuracy (%)** |
| **VGG16** | 85.608 | 85.635 | 85.596 | 85.635 |
| **Model2** | 99.459 | 99.447 | 99.447 | 99.447 |
| **Version1** | 98.367 | 98.345 | 98.366 | 98.342 |
| **Inception V3** | 90.405 | 89.502 | 89.476 | 89.502 |
| **Version2** | 97.905 | 97.790 | 97.771 | 97.790 |
| **AlexNet** | 84.585 | 79.005 | 79.071 | 79.005 |
| **ResNet** | 88.030 | 86.187 | 86.276 | 86.187 |