

Dataset Description:

Image Count:

Tomato Plant- It has 10 classes,

1. Tomato Bacterial Spot: **2127 images**
2. Tomato Early blight: **1000 images**
3. Tomato Late blight: **1909 images**
4. Tomato Leaf Mold: **952 images**
5. Tomato Septoria Leaf Spot: **1771 images**
6. Tomato Spider mites Two spotted spider mite: **1676 images**
7. Tomato Target Spot: **1404 images**
8. Tomato Yellow Leaf Curl Virus: **3209 images**
9. Tomato mosaic virus: **373 images**
10. Tomato healthy: **1591 images**

Potato Plant- It has 3 classes,

1. Potato Late Blight: **1000 images**
2. Potato Early Blight: **1000 images**
3. Potato Healthy: **152 images**

Pepper Plant- It has 2 classes,

1. Pepper bell Bacterial spot: **997 images**
2. Pepper bell healthy: **1478 images**

All Plant- Total we have 15 classes of the above 3 plants,

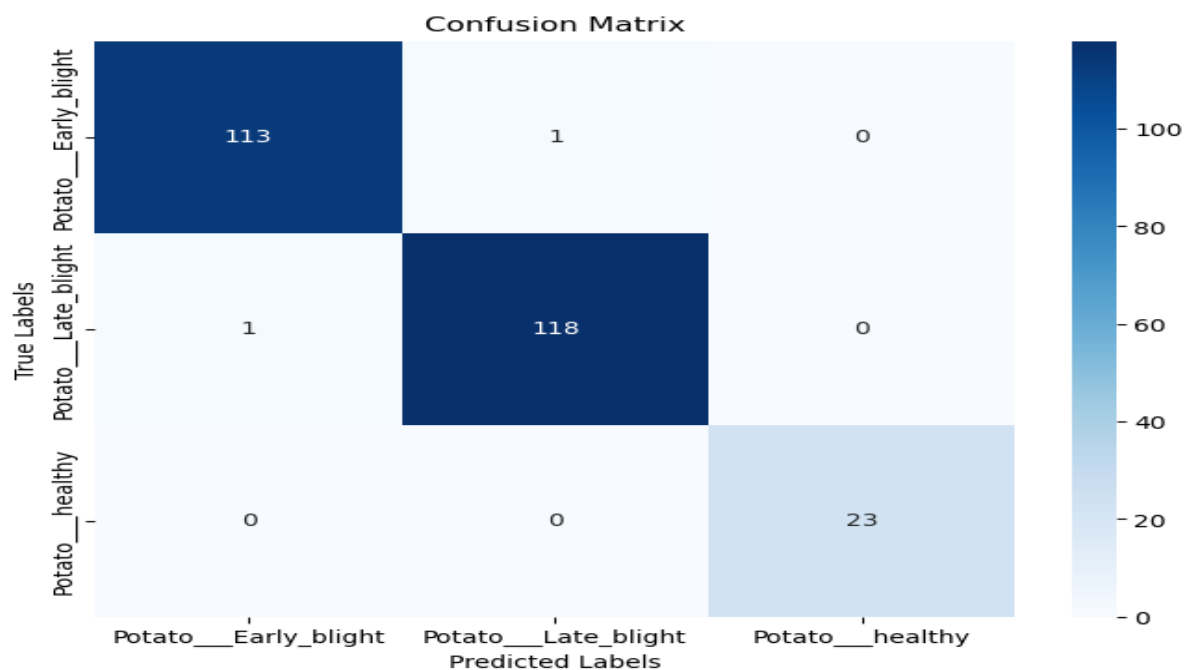
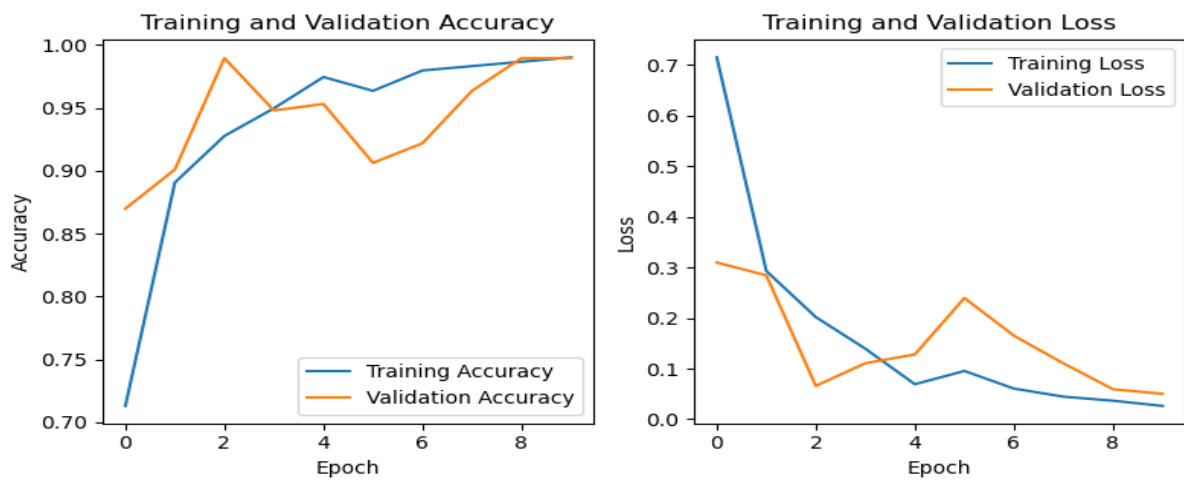
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8. Tomato Yellow Leaf Curl Virus: **3209 images**
9. Tomato mosaic virus: **373 images**
10. Tomato healthy: **1591 images**
11. Potato Late Blight: **1000 images**
12. Potato Early Blight: **1000 images**
13. Potato Healthy: **152 images**
14. Pepper bell Bacterial spot: **997 images**
15. Pepper bell healthy: **1478 images**

Total images: 20,639 images

Pixel: 256*256

Comparison of Results:

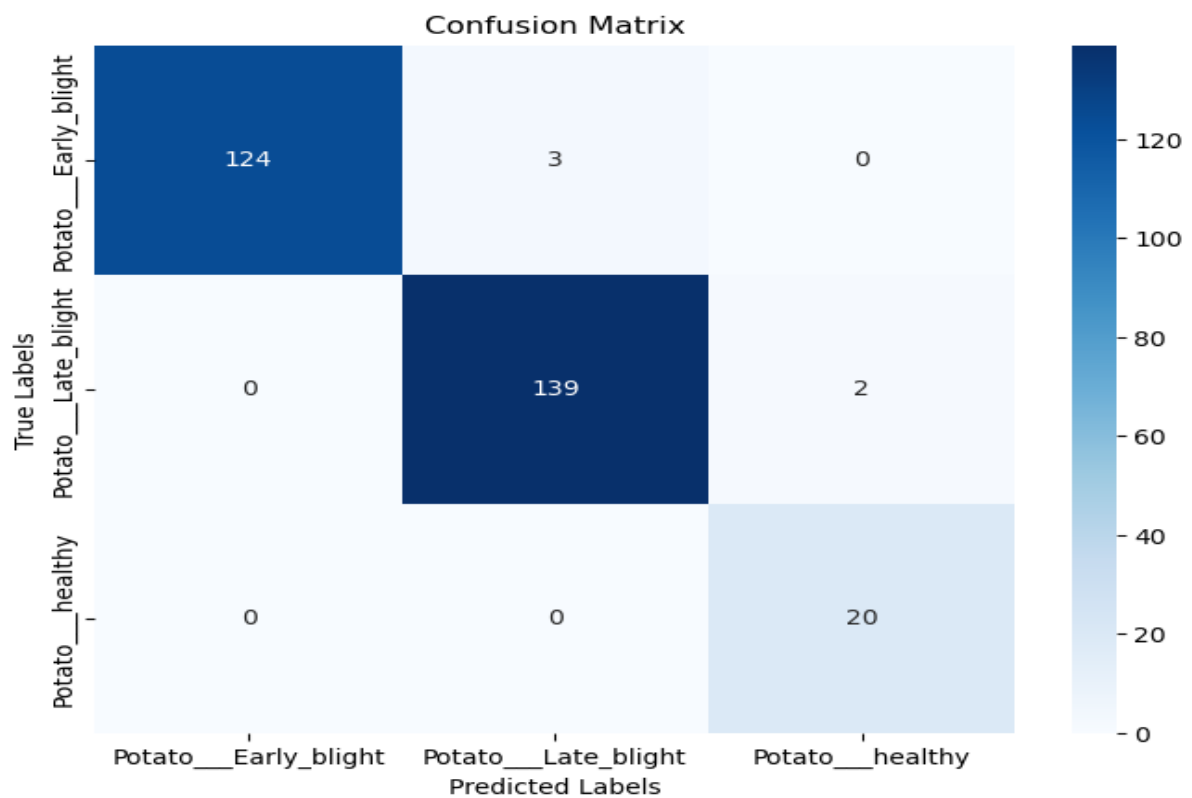
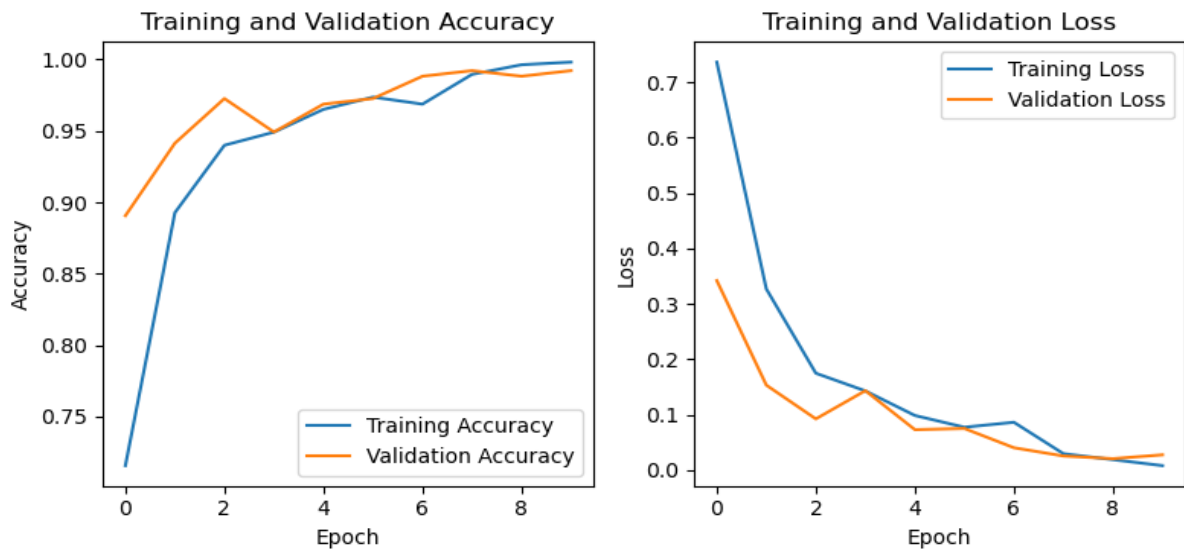
Potato Plant, Epoch 10:



Classification Report:

	precision	recall	f1-score	support
Potato__Early_blight	0.99	0.99	0.99	114
Potato__Late_blight	0.99	0.99	0.99	119
Potato__healthy	1.00	1.00	1.00	23
accuracy			0.99	256
macro avg	0.99	0.99	0.99	256
weighted avg	0.99	0.99	0.99	256

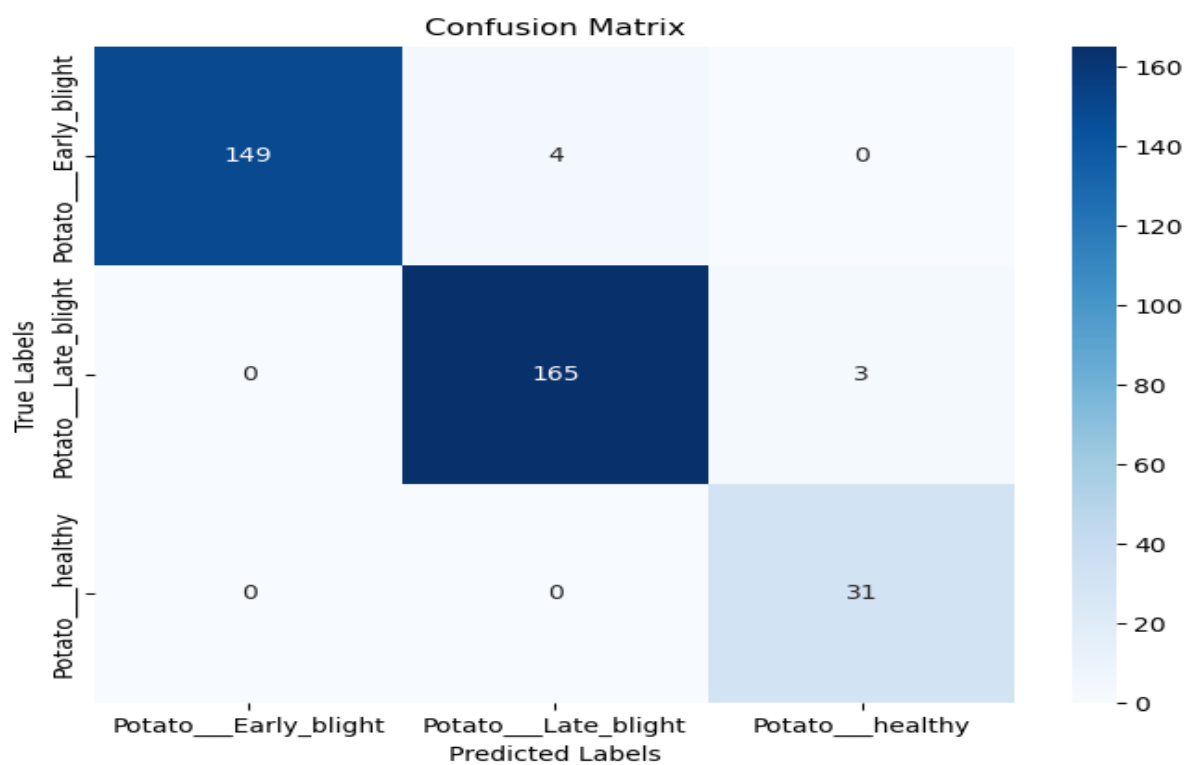
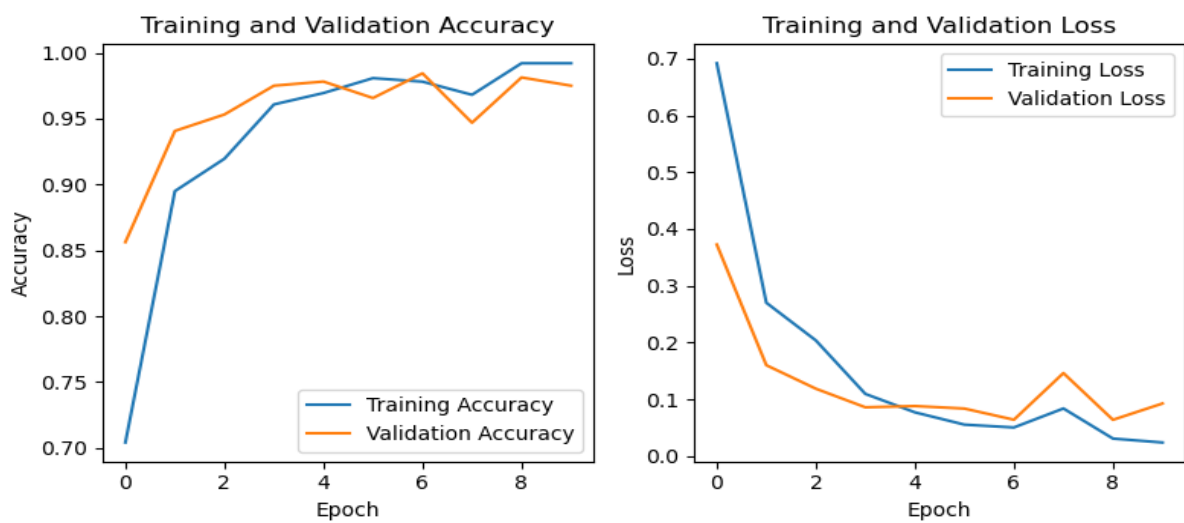
80:20 Train Test Spilt



Classification Report:

	precision	recall	f1-score	support
Potato__Early_blight	0.99	1.00	1.00	133
Potato__Late_blight	0.99	0.99	0.99	134
Potato__healthy	0.95	0.95	0.95	21
accuracy			0.99	288
macro avg	0.98	0.98	0.98	288
weighted avg	0.99	0.99	0.99	288

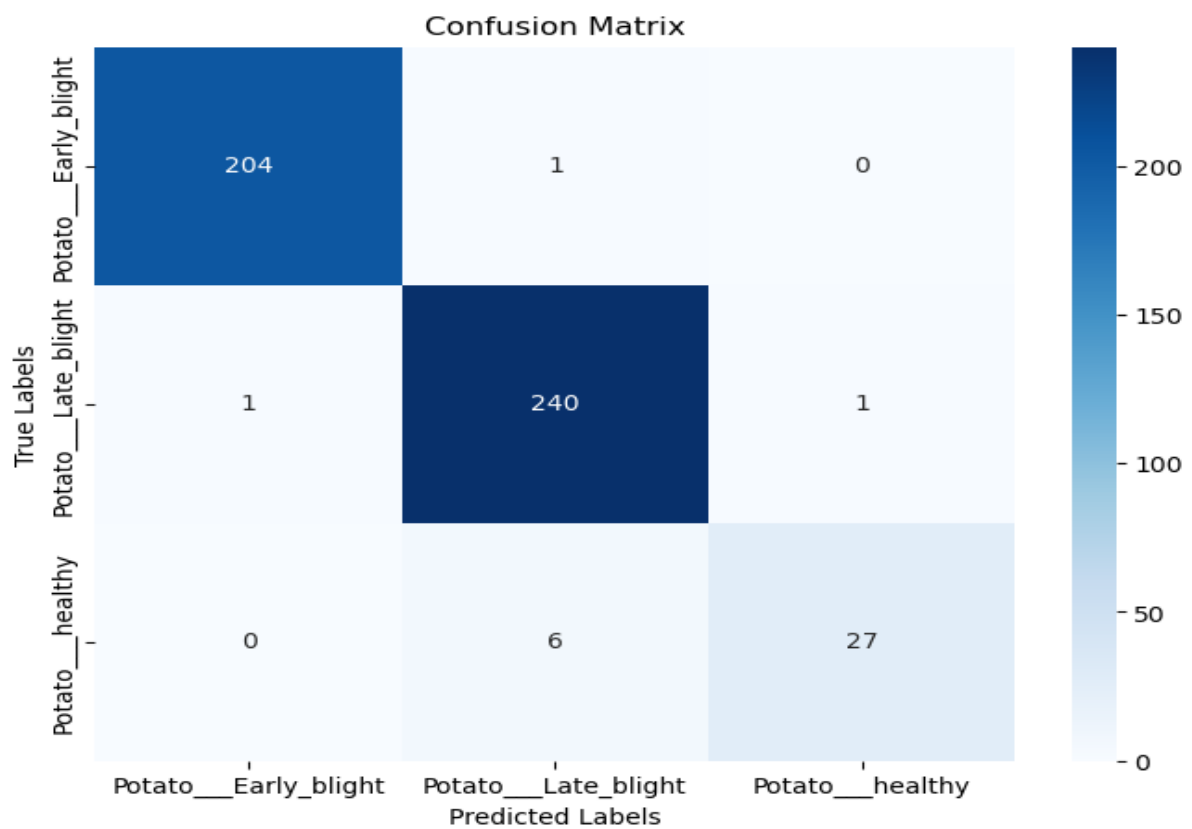
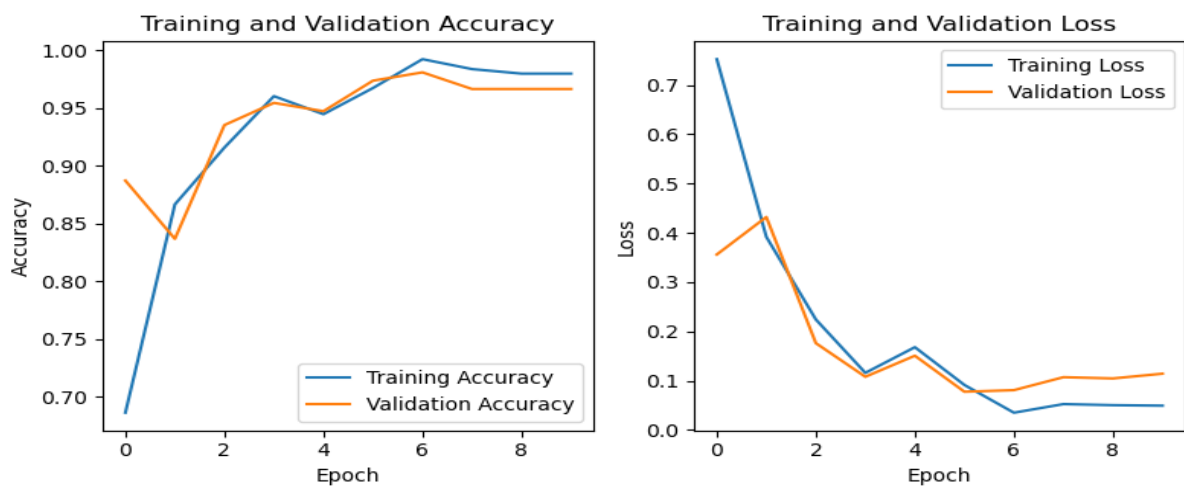
75:25 Train Test Spilt



Classification Report:

	precision	recall	f1-score	support
Potato__Early_blight	0.98	0.99	0.99	166
Potato__Late_blight	0.99	0.96	0.97	160
Potato__healthy	0.93	0.96	0.94	26
accuracy			0.98	352
macro avg	0.96	0.97	0.97	352
weighted avg	0.98	0.98	0.98	352

70:30 Train Test Split



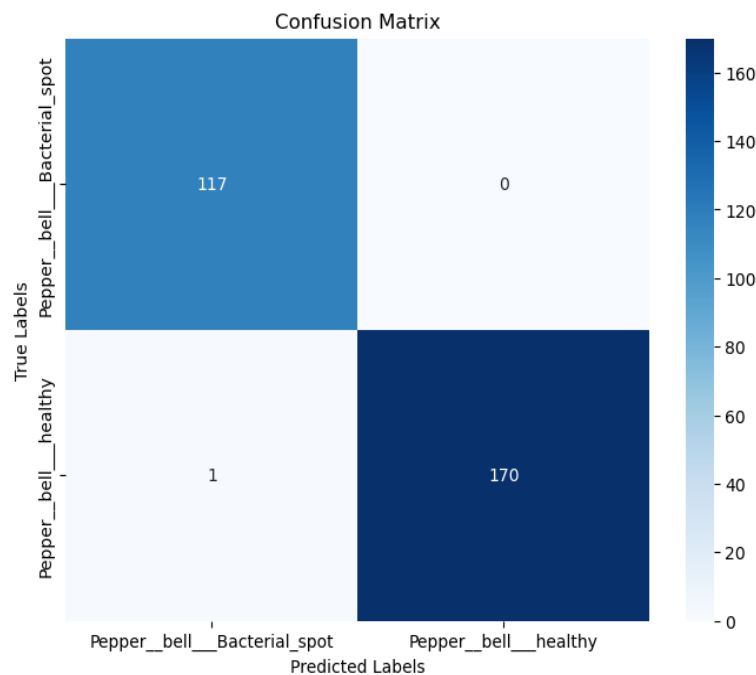
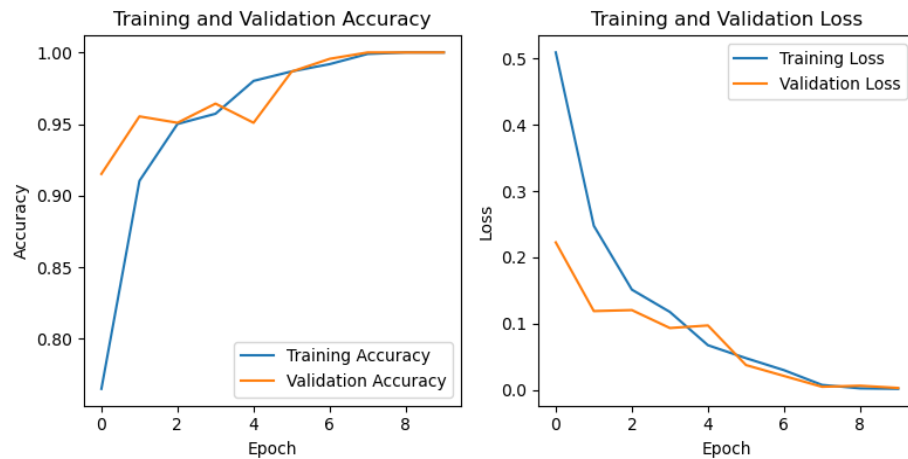
Classification Report:

	precision	recall	f1-score	support
Potato__Early_blight	1.00	0.99	0.99	213
Potato__Late_blight	0.98	1.00	0.99	236
Potato__healthy	1.00	0.94	0.97	31
accuracy			0.99	480
macro avg	0.99	0.97	0.98	480
weighted avg	0.99	0.99	0.99	480

60:40 Train Test Spilt

Comparison of Results:

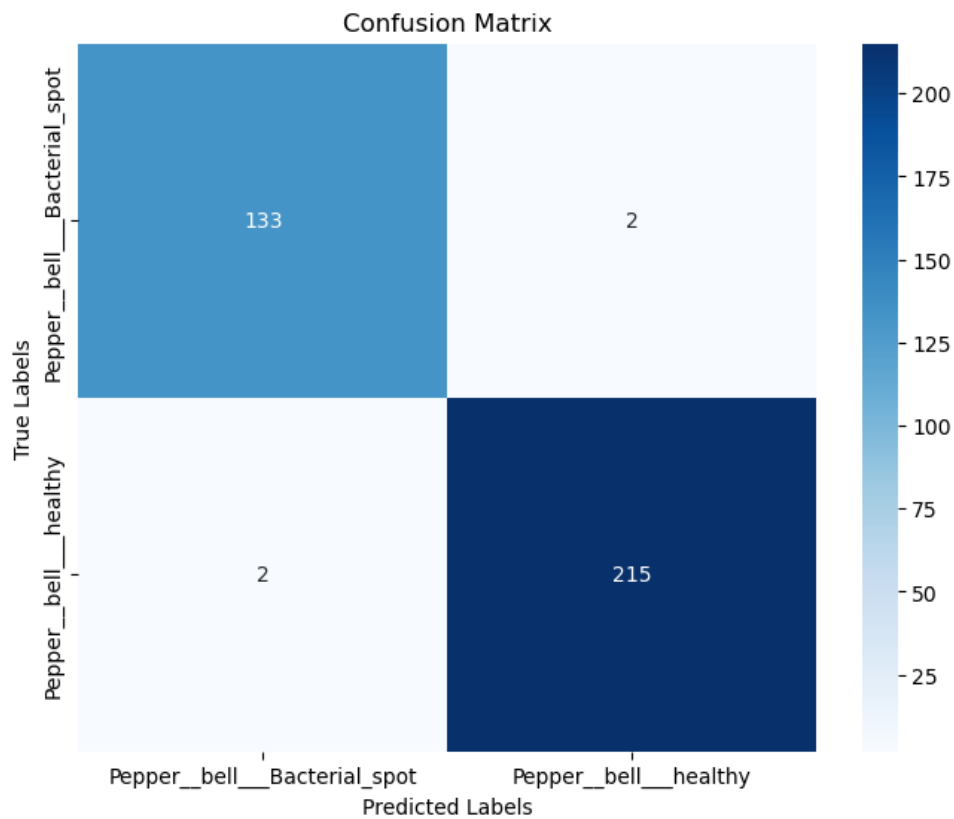
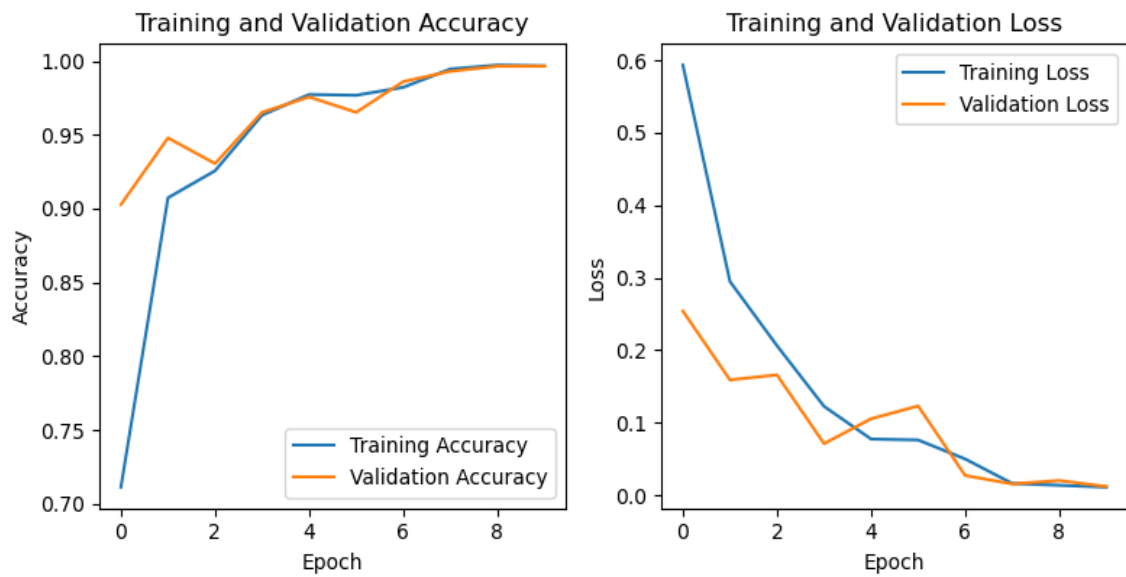
Pepper Bell Plant, Epoch 10:



Classification Report:

	precision	recall	f1-score	support
Pepper_bell__Bacterial_spot	0.99	1.00	1.00	117
Pepper_bell__healthy	1.00	0.99	1.00	171
accuracy			1.00	288
macro avg	1.00	1.00	1.00	288
weighted avg	1.00	1.00	1.00	288

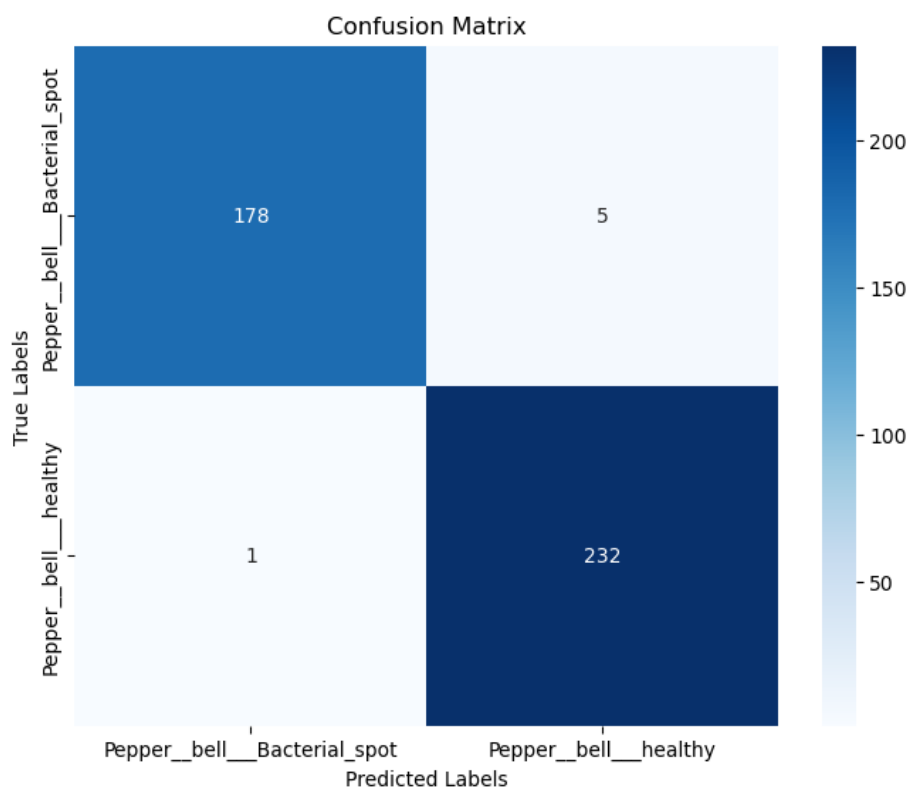
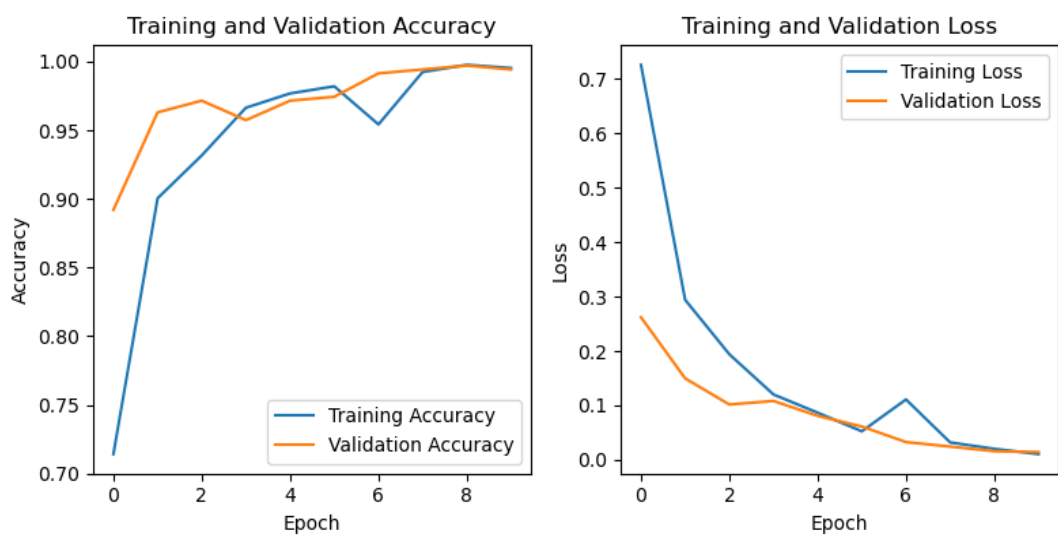
80:20 Train Test Spilt



Classification Report:

	precision	recall	f1-score	support
Pepper_bell__Bacterial_spot	0.99	0.99	0.99	135
Pepper_bell__healthy	0.99	0.99	0.99	217
accuracy			0.99	352
macro avg	0.99	0.99	0.99	352
weighted avg	0.99	0.99	0.99	352

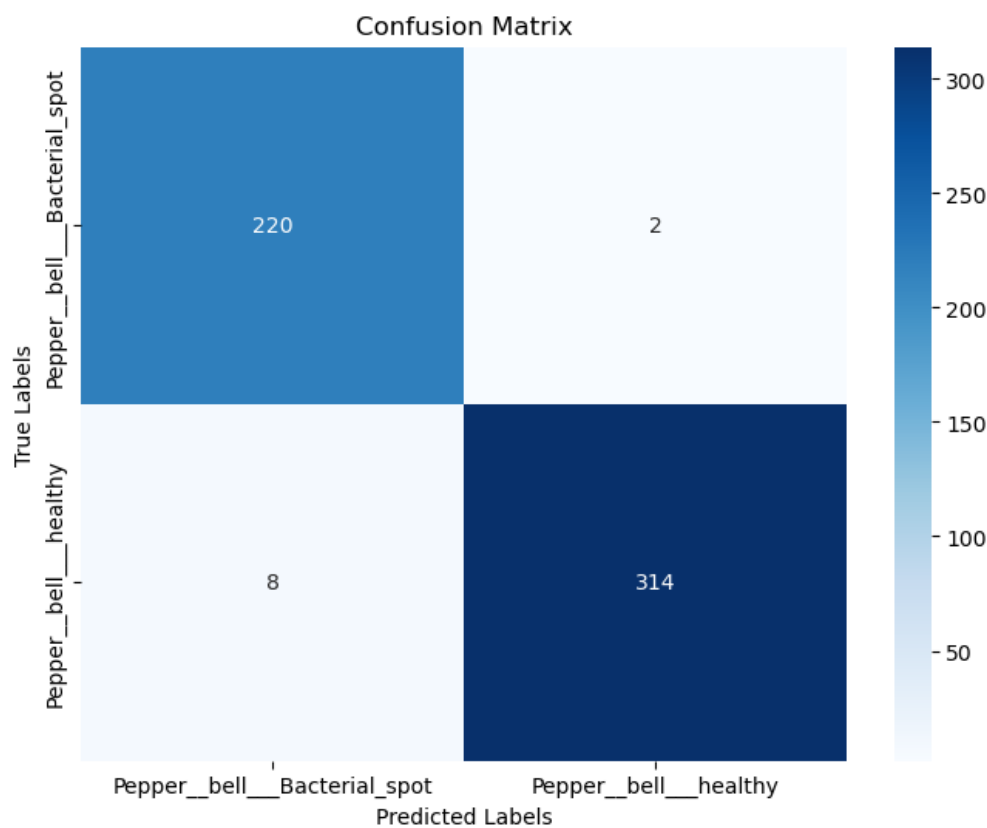
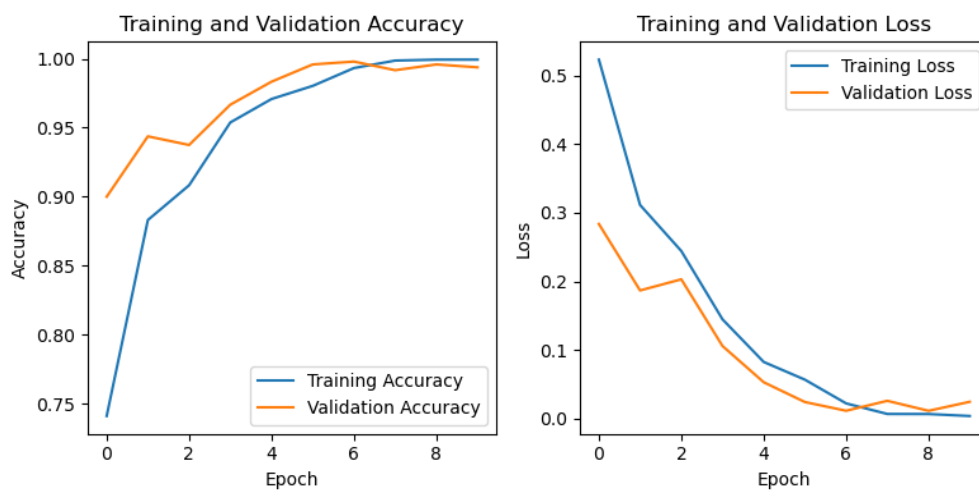
75:25 Train Test Spilt



Classification Report:

	precision	recall	f1-score	support
Pepper_bell__Bacterial_spot	0.99	0.97	0.98	183
Pepper_bell__healthy	0.98	1.00	0.99	233
accuracy			0.99	416
macro avg	0.99	0.98	0.99	416
weighted avg	0.99	0.99	0.99	416

70:30 Train Test Spilt



Classification Report:

	precision	recall	f1-score	support
Pepper__bell__Bacterial_spot	0.96	0.99	0.98	222
Pepper__bell__healthy	0.99	0.98	0.98	322
accuracy			0.98	544
macro avg	0.98	0.98	0.98	544
weighted avg	0.98	0.98	0.98	544

60:40 Train Test Spilt