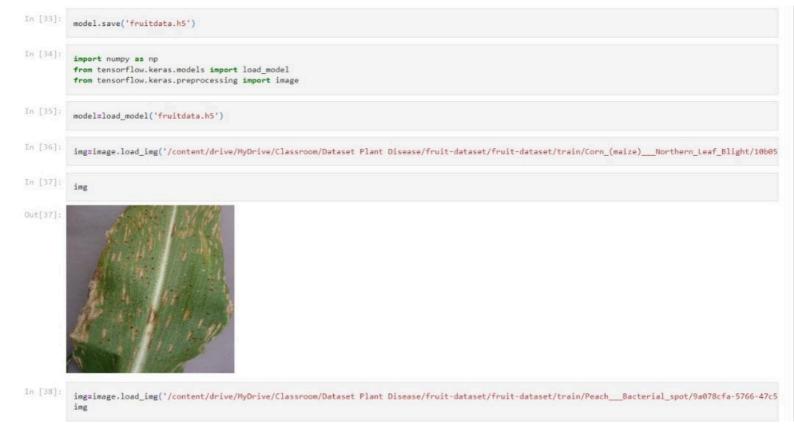


```
In [28]:
        model.add(MaxPooling2D(pool_size=(2,2)))
        model.add(Flatten())
        model.summary()
        Model: "sequential 1"
        Layer (type)
                               Output Shape
                                                     Param #
        ______
        conv2d_1 (Conv2D)
                               (None, 126, 126, 32)
                                                    896
        max_pooling2d_1 (MaxPooling (None, 63, 63, 32)
                                                     0
        2D)
        flatten_1 (Flatten)
                              (None, 127008)
                                                   0
       -----
        Total params: 896
        Trainable params: 896
       Non-trainable params: 0
In [29]: 32*(3*3*3+1)
        model.add(Dense(300,activation='relu'))
        model.add(Dense(150,activation='relu'))
In [30]:
        model.add(Dense(6,activation='softmax'))
        model.compile(loss='categorical_crossentropy',optimizer='adam',metrics=['accuracy'])
        len(x_train)
Out[30]: 3
In [31]:
        1238/24
Out[31]: 51.5833333333333336
```

model.fit(x\_train,steps\_per\_epoch=len(x\_train),validation\_data=x\_test,validation\_steps=len(x\_test),epochs=10)

In [32]:



```
Out[38]:

In [39]: x=image.img_to_array(img)

In [40]: x

Out[40]: array([[[187., 186., 220.], [171., 170., 204.], [157., 156., 190.], ..., [68., 66., 106.], [92., 89., 132.], [92., 89., 132.]], [168., 167., 201.], [157., 156., 190.], [157., 156., 190.], [157., 156., 190.], [150., 149., 183.],
```

[ 69., 67., 106.], [ 99., 97., 137.], [ 83., 80., 123.]],

[[161., 160., 194.], [156., 155., 189.], [152., 151., 185.],

```
[ 68., 66., 106.],
[ 92., 89., 132.],
 [ 92., 89., 132.]],
[[168., 167., 201.],
[157., 156., 190.],
[150., 149., 183.],
...,
 [ 69., 67., 106.],
 [ 99., 97., 137.],
 [ 83., 80., 123.]],
[[161., 160., 194.],
[156., 155., 189.],
[152., 151., 185.],
 [ 96., 94., 131.],
 [111., 109., 148.],
 [ 63., 61., 101.]],
...,
[[140., 143., 178.],
[140., 143., 178.],
[139., 142., 177.],
 [ 74., 73., 105.],
 [ 75., 74., 106.],
 [ 72., 71., 103.]],
[[139., 142., 177.],
[140., 143., 178.],
[140., 143., 178.],
...,
[ 93., 92., 124.],
 [ 88., 87., 119.],
[ 79., 78., 110.]],
[[137., 140., 175.],
[139., 142., 177.],
[141., 144., 179.],
 [ 90., 89., 121.],
 [ 79., 78., 110.],
[ 63., 62., 94.]]], dtype=float32)
```