

Date	Explanation	URL
Feb	Just leaving Florida. Big crowds of	

Start of Scapping

```
In [121]: print("LeanAgri webscraping")
```

LeanAgri webscraping

Here below code is for extracting all links for diseases and stores these in urls

```
In [349]: import requests
from bs4 import BeautifulSoup

parent_url = "http://www.agriculture.gov.au"
request = requests.get("http://www.agriculture.gov.au/pests-diseases-weeds/plant#identify-pests-diseases")
content = request.text

soup = BeautifulSoup(content, "html.parser")
elements = soup.find_all(href = True)
pattern = "/pests-diseases-weeds/plant/"
un_nes = ['xylella/', 'national', 'quarantine/']
urls = []

for e in elements:
    if pattern in e['href']:
        if any(x in e['href'] for x in un_nes):
            pass
        else:
            urls.append(parent_url+ e['href'])

urls = list(set(urls))
urls
```

```
Out[349]: ['http://www.agriculture.gov.au/pests-diseases-weeds/plant/tramp-ants',
'http://www.agriculture.gov.au/pests-diseases-weeds/plant/potato-cyst-nematode',
'http://www.agriculture.gov.au/pests-diseases-weeds/plant/xylella',
'http://www.agriculture.gov.au/pests-diseases-weeds/plant/phytophthora-blight',
'http://www.agriculture.gov.au/pests-diseases-weeds/plant/exotic-gypsy-moth',
'http://www.agriculture.gov.au/pests-diseases-weeds/plant/ug99',
'http://www.agriculture.gov.au/pests-diseases-weeds/plant/leaf-miner',
'http://www.agriculture.gov.au/pests-diseases-weeds/plant/khapra-beetle',
'http://www.agriculture.gov.au/pests-diseases-weeds/plant/brown-marmorated-stink-bug',
'http://www.agriculture.gov.au/pests-diseases-weeds/plant/giant-african-snail',
'http://www.agriculture.gov.au/pests-diseases-weeds/plant/karnal-bunt',
'http://www.agriculture.gov.au/pests-diseases-weeds/plant/exotic-bees',
'http://www.agriculture.gov.au/pests-diseases-weeds/plant/bees',
'http://www.agriculture.gov.au/pests-diseases-weeds/plant/russian-wheat-aphid',
'http://www.agriculture.gov.au/pests-diseases-weeds/plant/guava-eucalyptus-rust',
'http://www.agriculture.gov.au/pests-diseases-weeds/plant/zebra-chip',
'http://www.agriculture.gov.au/pests-diseases-weeds/plant/citrus-canker',
'http://www.agriculture.gov.au/pests-diseases-weeds/plant/huanglongbing',
```

```
'http://www.agriculture.gov.au/pests-diseases-weeds/plant/panama-disease-tropical-race-4',  
'http://www.agriculture.gov.au/pests-diseases-weeds/plant/fruit-flies']
```

1. Taking one disease link

2. And finding the disease name

```
In [355]: record = urls[0]  
  
request = requests.get(record)  
content1 = request.text  
soup1 = BeautifulSoup(content1, "html.parser")  
dname = soup1.find_all('h2')[0].text[:-1]  
  
dname
```

Out[355]: 'Tramp ants'

3. Retrieving image_url of the above Disease

```
In [356]: img = soup1.find_all('img')[3]  
parent_url + img['src']
```

Out[356]: 'http://www.agriculture.gov.au/SiteCollectionImages/pests-diseases-weeds/tramp-ants-1.jpg'

4. Retrieving Origin

```
In [357]: origin = soup1.find_all('strong')[1]  
# origin.text  
origin.next_sibling
```

Out[357]: 'Varies, depending on the species'

5. check if we can identify the pest

```
In [359]: identity = soup1.find_all('strong')[3]
identity.next_sibling
```

```
Out[359]: ' Classic ant body shape, under 5 mm, ability to \r\n          '
```

6. Finding suspect specimens

```
In [360]: specimen = soup1.find_all("div", {"class":"hide"})[2].text
specimen
```

```
Out[360]: 'Containment is critical. If you suspect you've seen a tramp ant, take a photo and record the location.'
```

7. Check what can legally come into Australia

```
In [361]: come_outof_australia = soup1.find_all("div", {"class":"hide"})[1].text
come_outof_australia
```

```
Out[361]: 'All Australians and international tourists have a role to keep out exotic pests and diseases. Australia remains free of many tramp ants, and most of the ones that have been introduced are restricted in distribution and are under eradication or management. We need your help to keep tramp ants out and to control the species that are here. Check what you can and cannot bring into Australia, whether you are a:\nimporter\nnonline shopper\ntraveller arriving in Australia. Tramp ants are hitchhikers and stowaways. Hitchhiker pests can arrive in Australia on many pathways such as goods, vessels or personal effects. Tramp ants have spread globally with the movement of travellers and goods in recent decades. Import restrictions and biosecurity measures. Some items, by law, are subject to certain import conditions to be allowed into Australia. Please check the \r\n          Biosecurity Import Condition System (BICON). Be aware of any tramp ant biosecurity measures that may be in place for incoming goods and conveyances. \r\n          Industry advice notices are reviewed regularly and could change.'
```

8. Below is for Finding all above things for all diseases in a tabular form

```
In [352]: records = []

for url in urls:
    request1 = requests.get(url)
    content1 = request1.text
    soup1 = BeautifulSoup(content1, "html.parser")

    dname = soup1.find_all('h2')[0].text
    img = parent_url + soup1.find_all('img')[3]['src']
    origin = soup1.find_all('strong')[1].next_sibling
    identity = soup1.find_all('strong')[3].next_sibling
    come_outof_aus = soup1.find_all("div", {"class": "hide"})[1].text
    specimen = soup1.find_all("div", {"class": "hide"})[2].text

    records.append([dname, img, origin, identity, come_outof_aus, specimen])

df = pd.DataFrame(records, columns=['Disease Name', 'Image Link', 'Origin', 'identification_of_pest', 'what can', 'Secure any'])
df
```

Out[352]:

	Disease Name	Image Link	Origin	identification_of_pest	what can legally come into Australia	Secure any suspect specimens
0	Tramp ants	http://www.agriculture.gov.au/SiteCollectionIm...	Varies, depending on the species	Classic ant body shape, under 5 mm, ability t...	All Australians and international tourists hav...	Containment is critical. If you suspect you've...
1	Potato cyst nemotade	http://www.agriculture.gov.au/SiteCollectionIm...	South America	Leaf wilting and discoloration, root cysts an...	All Australians and international tourists hav...	Remember the pest can spread easily via the mo...
2	Xylella	http://www.agriculture.gov.au/SiteCollectionIm...	Americas	Scorched leaves, browning and loss of leaves,...	All Australians and international tourists hav...	Containment is critical. This could be as easy...
3	Airborne phytophthora	http://www.agriculture.gov.au/SiteCollectionIm...	Asia	Oomycete causing leaf spots, shoot/branch dieb...	All Australians and international tourists hav...	Containment is critical. It is important to not...

	Disease Name	Image Link	Origin	identification_of_pest	what can legally come into Australia	Secure any suspect specimens
4	Gypsy moth	http://www.agriculture.gov.au/SiteCollectionIm...	China, East Russia, Southern Europe and Northe...	Males and female moths differ in sizing and c...	All Australians and international tourists hav...	Containment is crucial. If you suspect you've ...
5	Ug99	http://www.agriculture.gov.au/SiteCollectionIm...	Uganda	Reddish brown, powdery, oblong spore-producing...	All Australians and international tourists hav...	Containment is critical. If you suspect you h...
6	Leaf miner	http://www.agriculture.gov.au/SiteCollectionIm...	South America		All Australians and international tourists hav...	Containment is critical. Alert the department ...
7	Khapra beetle	http://www.agriculture.gov.au/SiteCollectionIm...	India	Adult – tiny, dark brown, oval shaped, covere...	All Australians and international tourists hav...	Containment is critical. Khapra beetles do not...
8	Brown marmorated stink bug	http://www.agriculture.gov.au/SiteCollectionIm...	East Asia	Shield shape, adults are mottled reddish-brow...	All Australians and international tourists hav...	Containment is critical. The bug is a strong ...
9	Giant African snail	http://www.agriculture.gov.au/SiteCollectionIm...	Eastern Africa	Large, long and narrow conical shell, eggs ...	All Australians and international tourists hav...	Containment is critical. Giant African snails ...
10	Karnal bunt	http://www.agriculture.gov.au/SiteCollectionIm...	India	Broken hollow grain, powdery masses of dark s...	All Australians and international tourists hav...	Containment is critical. This can be as easy a...
11	Exotic bees	http://www.agriculture.gov.au/SiteCollectionIm...	Varies, depending on the species	Various sizes up to 2cm, striped abdomens, of...	Find out what can legally come into Australia....	Containment is critical. If you work around im...
12	Internal and external mites of bees	http://www.agriculture.gov.au/SiteCollectionIm...	Asia (tropical and varroa mites), unknown ...	Four pairs of legs, 0.5 mm x 1 mm (tropical a...	All Australians and international tourists hav...	Containment is crucial. If you suspect you've ...
13	Russian wheat aphid	http://www.agriculture.gov.au/SiteCollectionIm...	Central Asia and southern Russia	Light green, elongated spindle-shaped aphid, a...	All Australians and international tourists hav...	Containment is critical. This could be as eas...

	Disease Name	Image Link	Origin	identification_of_pest	what can legally come into Australia	Secure any suspect specimens
14	Guava (eucalyptus) rust	http://www.agriculture.gov.au/SiteCollectionIm...	Brazil	Yellowish pustules on young leaves, shoots, s...	All Australians and international tourists ha...	Containment is critical. In as little ...
15	Zebra chip	http://www.agriculture.gov.au/SiteCollectionIm...	Mexico	USA, Canada, Mexico, Guatemala, Honduras ...	All Australians and international tourists hav...	Containment is critical. This could be as eas...
16	Citrus canker	http://www.agriculture.gov.au/SiteCollectionIm...	South East Asia	Forms lesions on fruit, leaves and branches, c...	All Australians and international tourists ha...	Containment is critical.Look out for scabby ...
17	Huanglongbing	http://www.agriculture.gov.au/SiteCollectionIm...	Asia and Africa	Yellowing, blotchy mottling and unseasonal le...	All Australians and international tourists hav...	Containment is critical. This could be as easy...
18	Panama disease Tropical Race 4	http://www.agriculture.gov.au/SiteCollectionIm...	South East Asia	Distribution: 	All Australians and international tourists ha...	Containment is critical. If you suspect ...
19	Exotic fruit fly	http://www.agriculture.gov.au/SiteCollectionIm...	Asia	Tephritids - 2.5–10 mm, colourful, pictured w...	All Australians and international tourists hav...	Containment is critical. Fruit fly adults are ...

writing these above data to excel / csv

```
In [364]: df.to_csv('Agri_scrap.csv', index = False, encoding='utf-8-sig')
```