File   Edit   View   Insert   Cell   Kernel   Widgets   Help

In [1]:
```
#Based on the kaggle information, we are givne that 12 years ago, there was a rapid decline in honeybee population due to
#Colony Collapse Disorder. For this reason, many industries are stil recovering. As a data analyst, the goal is to find out
#state is struggling the most using facet grid.
```

In [2]:
```python
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
import os
```

In [3]:
```python
import matplotlib.pyplot as plt
import seaborn as sns #Uses matplotlib but works as an upgrade of matplotlib.
%matplotlib inline
```

In [4]:
```python
import matplotlib.pyplot as plt
import seaborn as sns #Uses matplotlib but works as an upgrade of matplotlib.
%matplotlib inline
os.chdir('C:\\Users\\spark\\Desktop\\Data Science Projects\\Honey Production in  USA') #This is changing the working directo
Honeyproduction = pd.read_csv('honeyproduction.csv')
```

In [5]:
```python
Honeyproduction
```

Out[5]:

	state	numcol	yieldpercol	totalprod	stocks	priceperlb	prodvalue	year
0	AL	16000.0	71	1136000.0	159000.0	0.72	818000.0	1998
1	AZ	55000.0	60	3300000.0	1485000.0	0.64	2112000.0	1998
2	AR	53000.0	65	3445000.0	1688000.0	0.59	2033000.0	1998
3	CA	450000.0	83	37350000.0	12326000.0	0.62	23157000.0	1998
4	CO	27000.0	72	1944000.0	1594000.0	0.70	1361000.0	1998
...	...	...	...	...	...	...	...	...
621	VA	4000.0	41	164000.0	23000.0	3.77	618000.0	2012
622	WA	62000.0	41	2542000.0	1017000.0	2.38	6050000.0	2012
623	WV	6000.0	48	288000.0	95000.0	2.91	838000.0	2012
624	WI	60000.0	69	4140000.0	1863000.0	2.05	8487000.0	2012
625	WY	50000.0	51	2550000.0	459000.0	1.87	4769000.0	2012

626 rows × 8 columns

In [6]:
```python
sns.set_style("dark", {"axes.facecolor":"black"})
sns.relplot(x="year", y="stocks", data=Honeyproduction)
#This general data seemingly show that the stocks are generally decreasing. But is this happening all over the states?
#To find out, we need to use facet function.
```

<seaborn.axisgrid.FacetGrid at 0x26d1510c5e0>
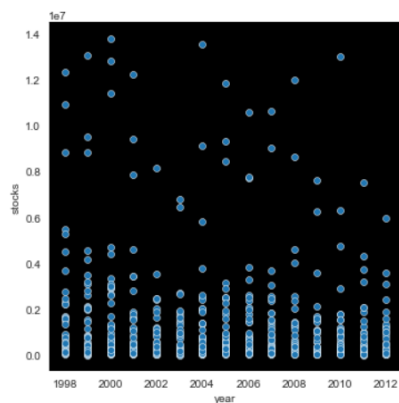
```
In [7]:   1  #we want to first see the general trend.
          2  #Then,
          3  #By just looking at the scatter plot of a whole, we don't know which state was causing the influence.
          4  #So we use FacetFGrid to find out regional factors like states that could be driviing he change.
          5  #Working on this: Honeyproduction = sns.load_dataset("Honeyproduction")
```

```
In [8]:   1  sns.set_style("ticks", {"axes.facecolor":"black"})
          2  g= sns.FacetGrid(Honeyproduction, col = 'state')
          3  g.map_dataframe(sns.scatterplot, x= 'year', y='stocks')
          4  g.set_axis_labels('year','stocks')
          5  #states are selected since the diesase or disorder of bees can be impacted by state distance.
```

Out[8]:   <seaborn.axisgrid.FacetGrid at 0x26d1749c220>
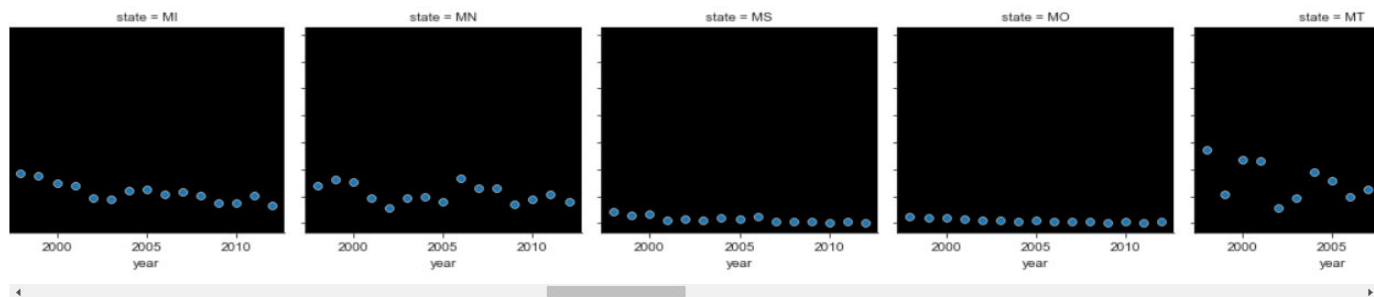

```
In [9]:   1  #From the data, we see that states CA, MI, SD, WI have been struggling the most
          2  #since these are the particular states with a decreasing stock price.
```