

2.1.5. Half-life and Biomagnification

DDT stands for dichloro, diphenyl trichloroethane. It is a chlorinated hydrocarbon, a class of chemicals which are great examples of biomagnification. DDT has a half-life of 15 years. Therefore if you start with 100 kg of DDT, it will break down as follows:

Year	Amount Remaining
0	100 kg
15	50 kg
30	25 kg
45	12.5 kg
60	6.25 kg
75	3.13 kg
90	1.56 kg
105	0.78 kg
120	0.39 kg

This means that after 100 years, there will still be over a pound of DDT in the environment. Because it is fat soluble, much of the DDT will remain in the bodies of organisms.

Assignment 1:

1. Draw a graph of this data on the graph below and describe it.
2. Explain the data in the graph and interpret the impacts on an ecosystem of this phenomenon.
