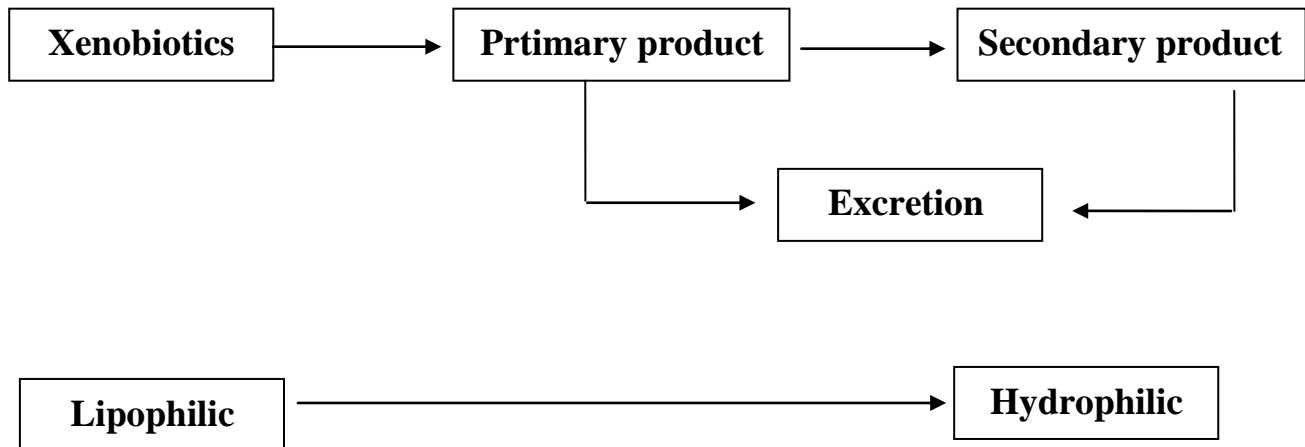


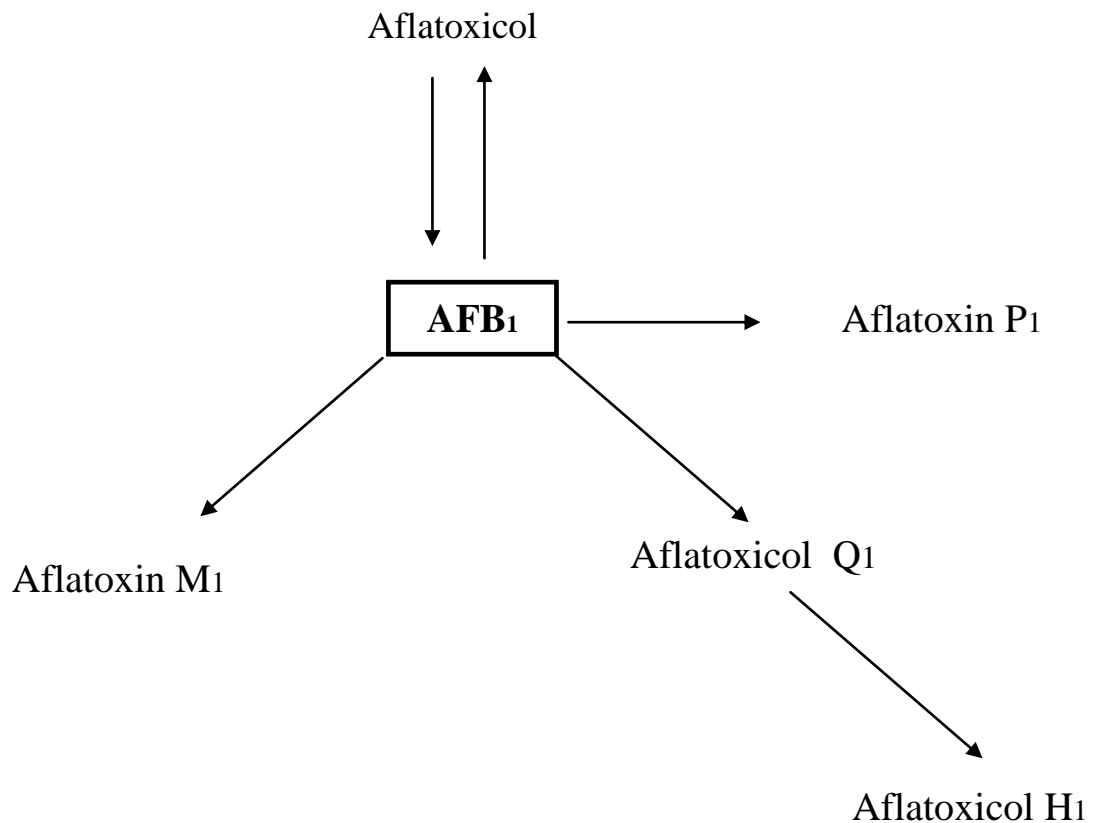
Lec-5-

Metabolism of mycotoxins

Transformation is process including large number of bioreaction and their reaction are occur through two phases as the following :



For example : metabolize of Aflatoxin in Liver .



Factor affecting mycotoxins production in foods

The factor affect in mycotoxins production involves :

1- Water activity : water content of foods or feeds referred water activity while the microorganisms (Bacteria , Fungi , and anther) can be absorption of this water . Most of fungi can be growth and production of mycotoxins about (0.88 – 0.99) .

2- Temperature : the fungi growth and mycotoxins production are in range between (5- 35)C° but the optimal temperatre is (25- 30) C° .

3- PH : the ph substance affective in fungi growth and mycotoxins production . the lytical enzymes activities for organic substance are decrease while the ph increased but the production of mycotoxins increased while the ph decreased .

4- Aeration : the fungi are aerobic organism and the O₂ is major required for growth and reproduction . most of fungi can not growth without O₂ .

5- The types of foods : The foods are rich with protein and poor with carbohydrate are growth stable fungi , but not stable for mycotoxins produce glucose and sorbitol are helping to mycotoxins production while the complex saccharides are inhibition product of mycotoxins .

6- Strain of fungus : The strains of fungi are able to produce mycotoxins , controlling of their ability of produce many genes .