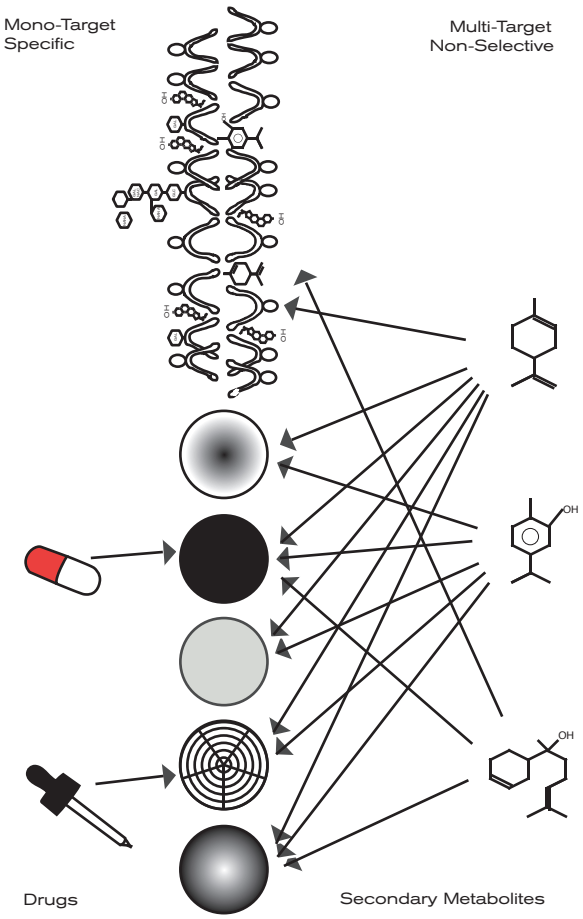

Comparison of Single and Multi Target Strategies:

Proteins and Biomembranes are at the center of the graph representing molecular targets.

*disturbance of the three dimensional structure of proteins

*covalent bonding to DNA and RNA, modifying gene expression

*changing membrane permeability and the function of membrane proteins.

Only the first mechanism, the interaction of a secondary metabolite with an active site of a protein is selective and specific. Such interactions are very powerful, but their disadvantage is that they are generally restricted to a small number of enemies who have the specific target.

Molecules which disturb the conformation of proteins, the structure of DNA and RNA or the fluidity of membranes are obviously non selective. Such molecules interact with many different targets. Although non specific, these interactions are very effective as they disturb molecular targets in whatever enemy attacks the plant.

9.3

Multi Component and Multi Target

We have seen that plants developed SM which can interact with the broadest variety of molecular targets of an