Abstract: Fungi are far more complex organisms than viruses or bacteria and can developed numerous diseases in plants that cause loss of big portion of the crop every year. Plants have developed various mechanisms to defend themselves against these fungi which include the production of low molecular weight secondary metabolites, proteins and peptides having antifungal activity. In this review, brief information like biochemistry, source, regulation of gene expression, mode of action of defense mechanism of various pathogenesis-related proteins is given. Proteins include pathogenesis-related protein 1, β-glucanases, chitinases, chitin binding protein, thaumatine like protein, glycine-histidine rich proteins, ribosome inactivating protein,

and some newly discovered antifungal proteins.