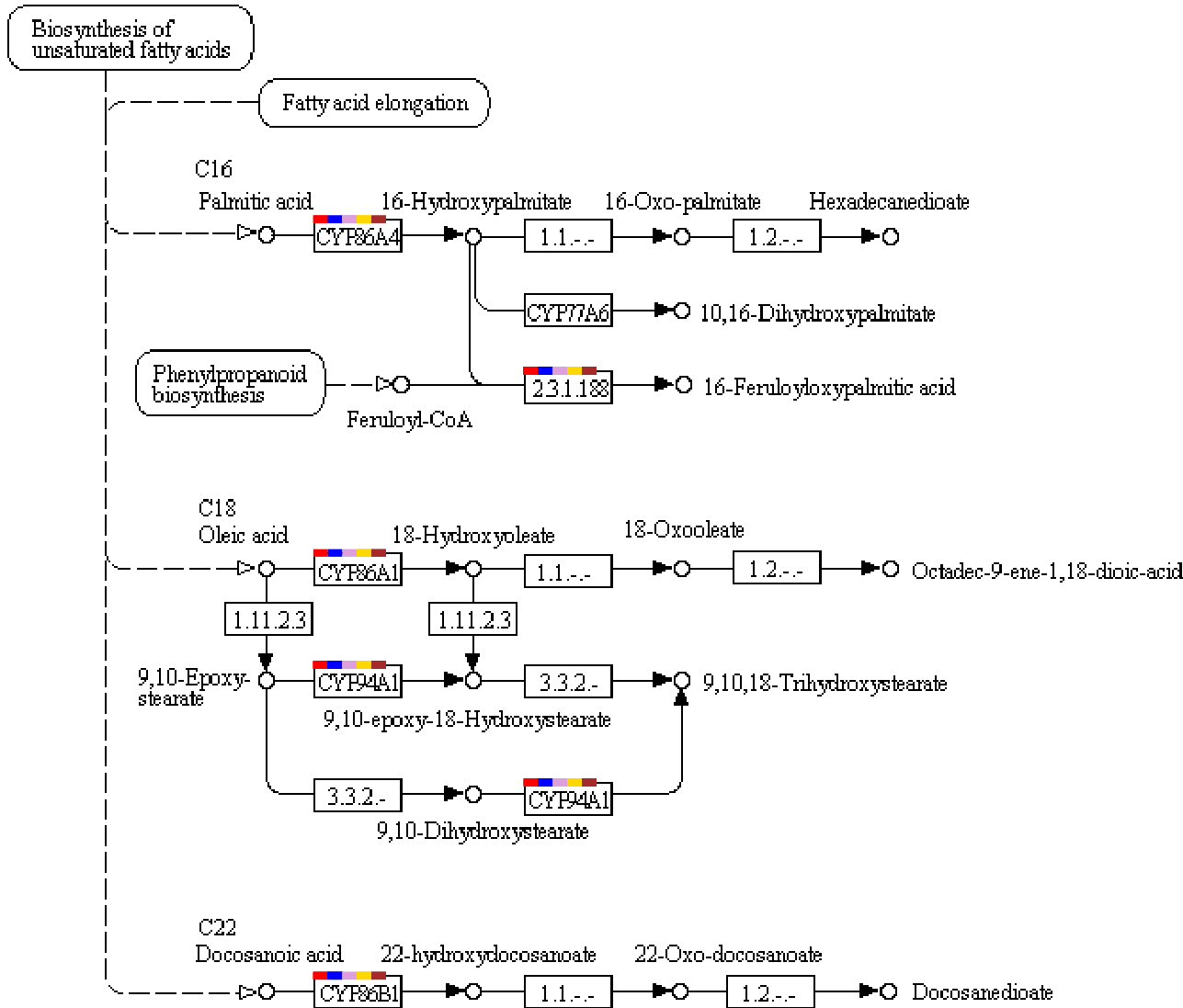
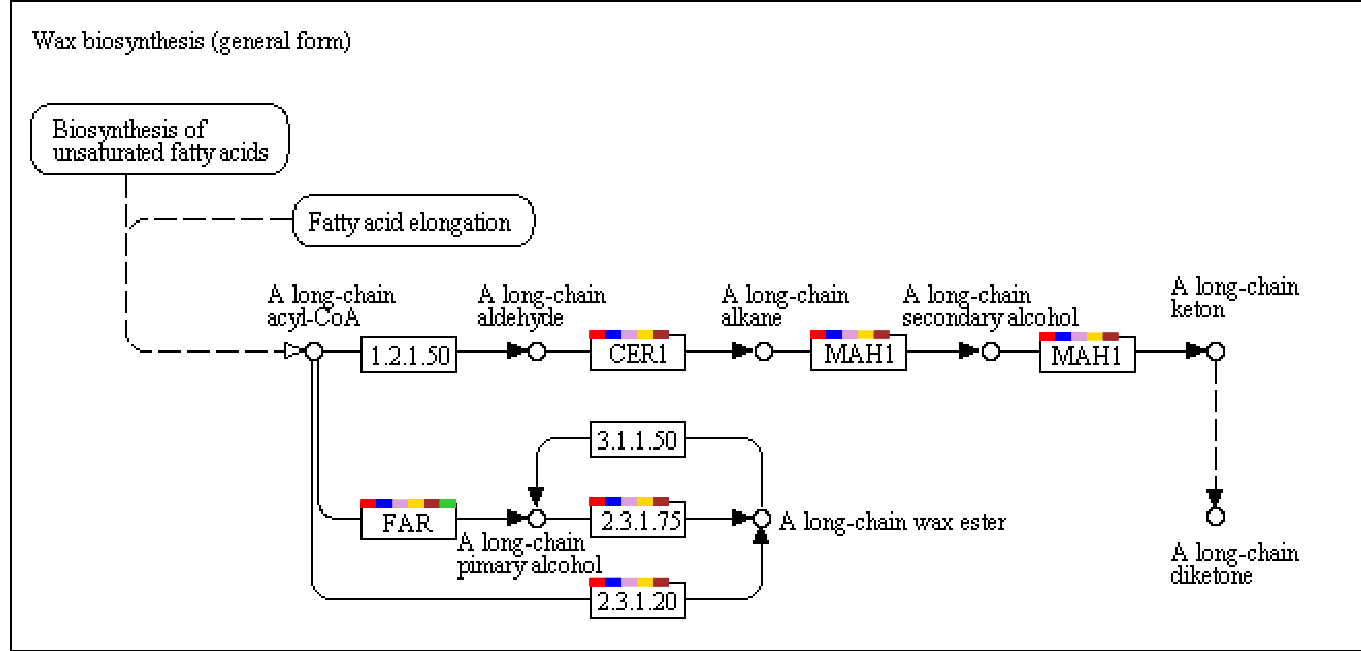
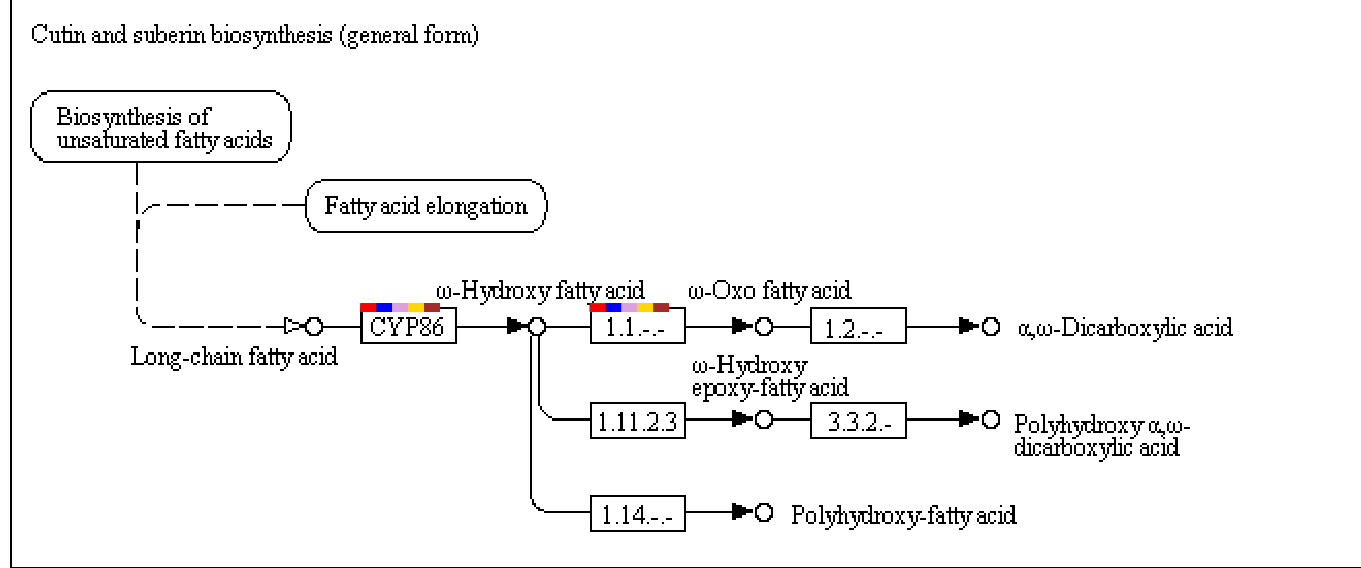


CUTIN, SUBERINE AND WAX BIOSYNTHESIS



Structure of common cutin and suberin monomers

Unsubstituted fatty acids	<chem>CCCCCCCCCCCCCCCCCC(=O)O</chem>
ω -Hydroxy fatty acids	<chem>CCCCCCCCCCCCCCCCCC(O)C(=O)O</chem>
α,ω -Dicarboxylic acids	<chem>CCCCCCCCCCCCCCCCCC(=O)O</chem>
Mid-chain functionalized monomers	<chem>CCCCCCCCC1OCCCCCCCC1C(=O)O</chem>
Epoxy-fatty acids	<chem>CCCCCCCCC1OCCCCCCCC1C(=O)O</chem>
Polyhydroxy-fatty acids	<chem>CCCC(O)CCCC(O)CCCC(O)CCCC(=O)O</chem>
Polyhydroxy α,ω -dicarboxylic acids	<chem>CCCC(O)CCCC(O)CCCC(O)CCCC(=O)O</chem>
Fatty alcohols	<chem>CCCCCCCCCCCCCCCCCCO</chem>
Alkan-1-ols and alken-1-ols	<chem>CCCCCCCCCCCCCCCCCCO</chem>
α,ω -Alkanediols and α,ω -alkenediols	<chem>CCCC(O)CCCC(O)CCCCO</chem>
Glycerol	<chem>OCC(O)CO</chem>
Phenolics	<chem>COc1ccc(O)cc1/C=C/C(=O)O</chem>



Structure of common wax

Alkenes	Aldehydes	Secondary alcohols	Ketons
<chem>R-CH=CH-R'</chem>	<chem>R-CHO</chem>	<chem>R-CH(OH)-R'</chem>	<chem>R-C(=O)-R'</chem>
Diketones			
<chem>R-C(=O)-CH2-CH2-C(=O)-R'</chem>	<chem>R-C(=O)-CH2-CH2-C(=O)-R'</chem>	<chem>R-C(=O)-CH2-CH2-C(=O)-R'</chem>	
Primary alcohols	Alkyl esters		
<chem>R-CH2-OH</chem>	<chem>R'-COO-CH2-CH2-R</chem>		