

Supplementary material

The Current State of Knowledge on *Salvia hispanica* and *Salviae hispanicae semen* (Chia Seeds)

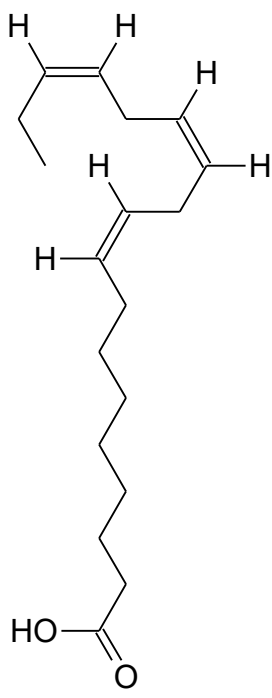
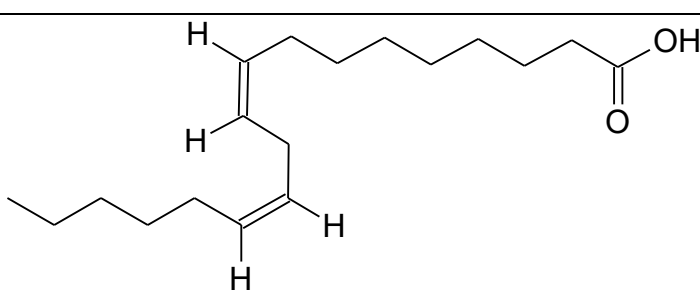
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Fatty acid	Type of fatty acid	Chemical structure
Polyunsaturated fatty acids (PUFA)		
α -Linolenic acid	Omega - 3	
Linoleic acid	Omega - 6	
Monounsaturated fatty acids (MUFA)		

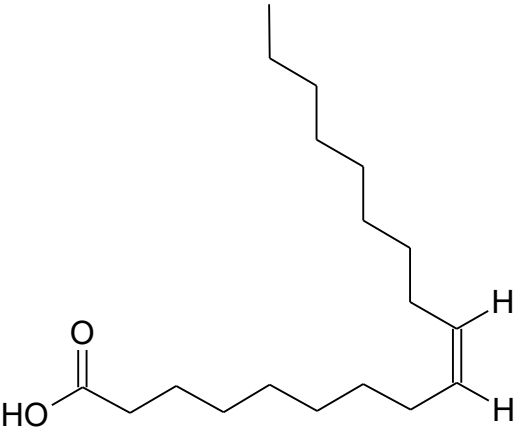
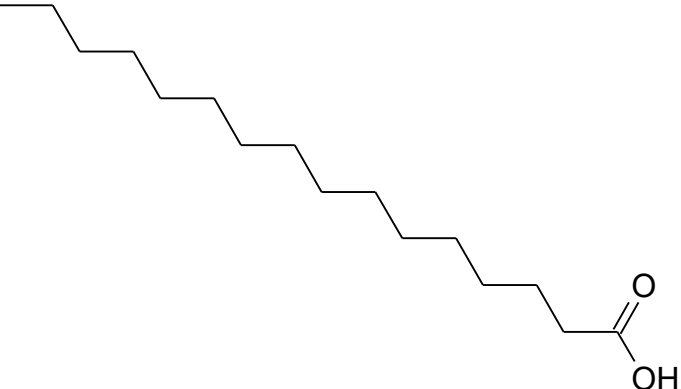
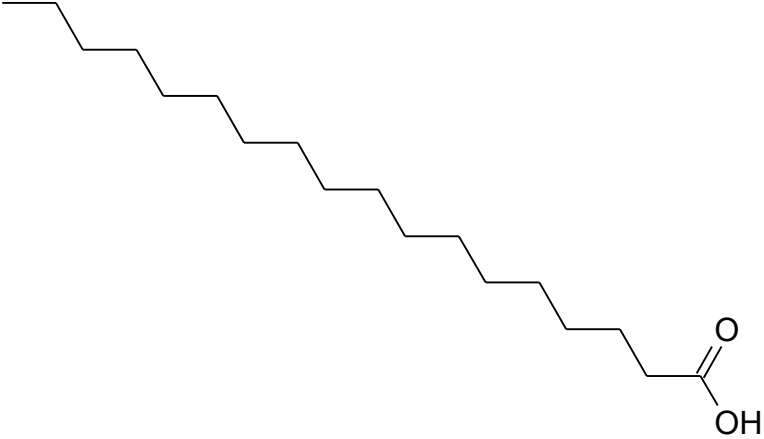
Oleic acid	Omega - 9	
Saturated fatty acids (SFA)		
Palmitic acid		
Stearic acid		

Figure S1. Chemical structures of the main fatty acids present in *S. hispanica* seeds.

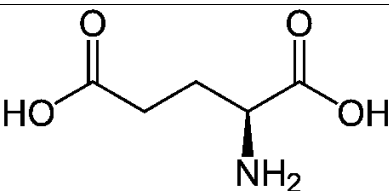
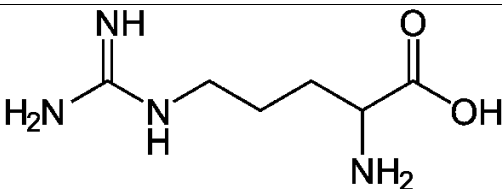
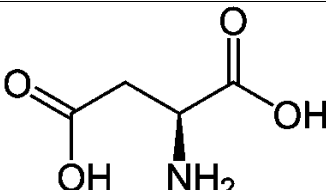
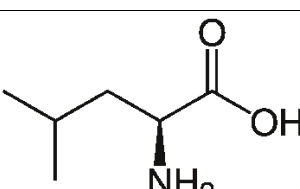
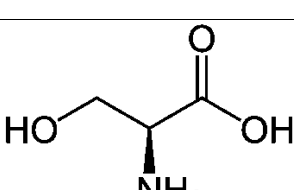
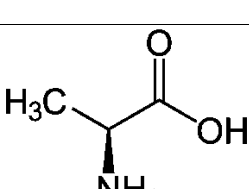
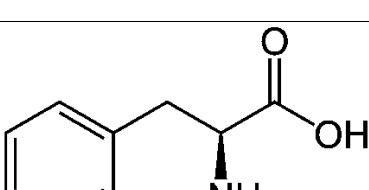
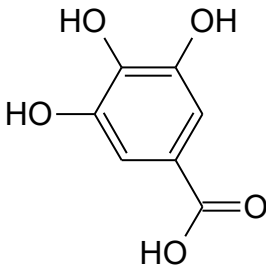
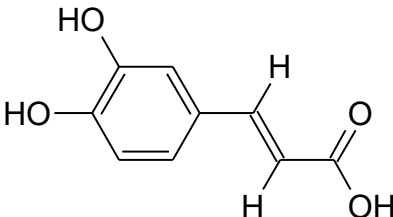
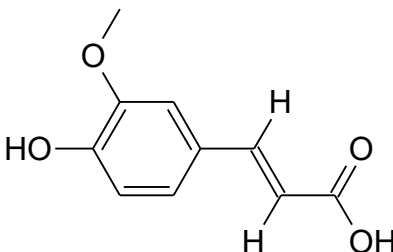
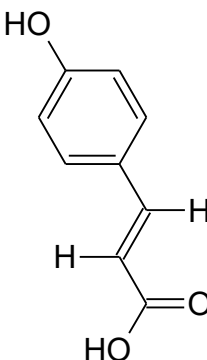
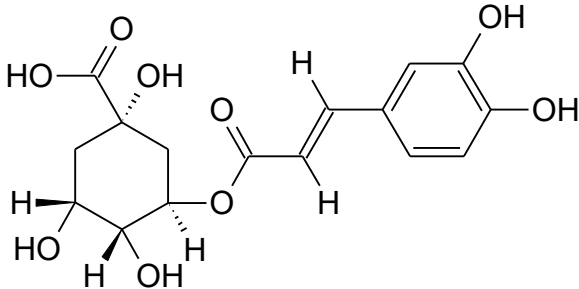
Amino acid	Chemical structure
Glu	
Arg	
Asp	
Leu	
Ser	
Ala	
Phe	

Figure S2. Chemical structures of the main amino acids present in *S. hispanica* seeds.

Phenolic acid		Chemical structure
Simple phenolic acids	Gallic acid	
	Caffeic acid	
	Ferulic acid	
	<i>p</i> -Coumaric acid	
Depsides	Chlorogenic acid (3-O-cavoylquinic acid)	

Rosmarinic acid (ester of
 α -hydroxy-dihydrocaffeic
acid and caffeic acid)

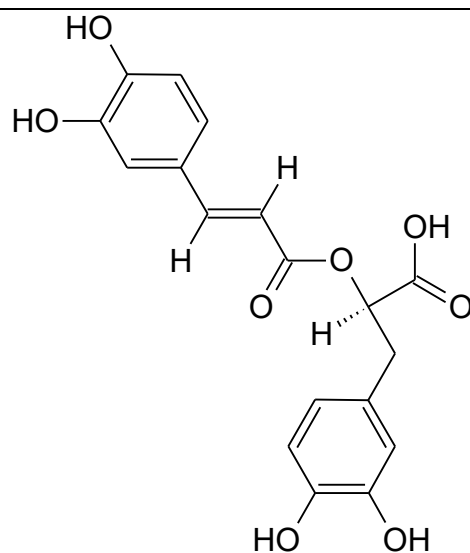
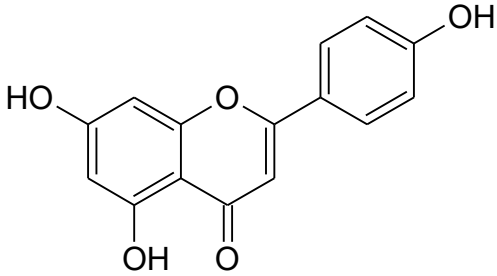
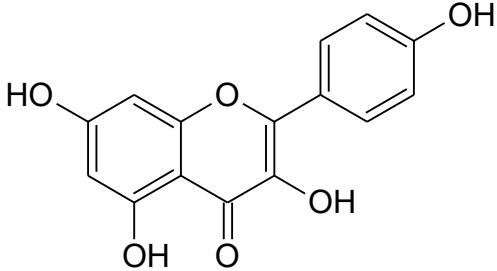
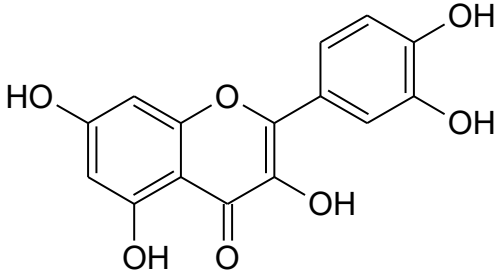
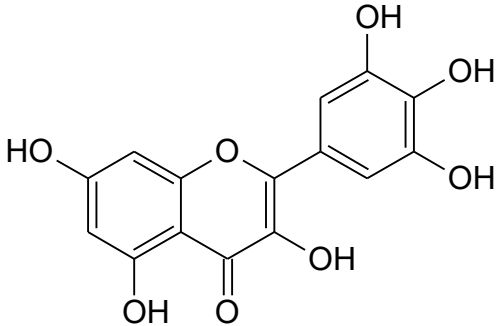
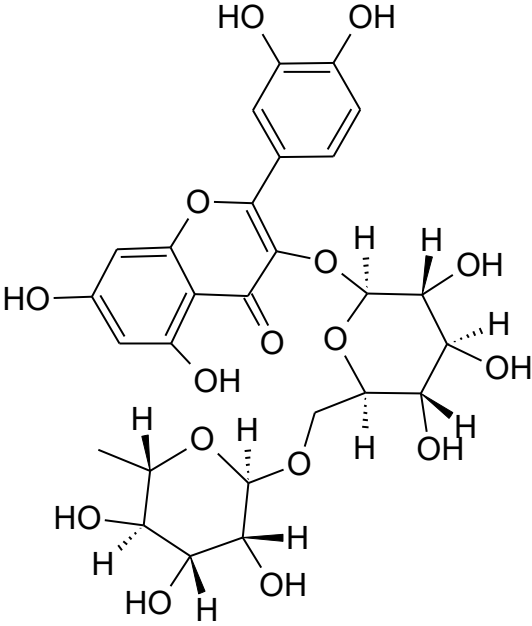
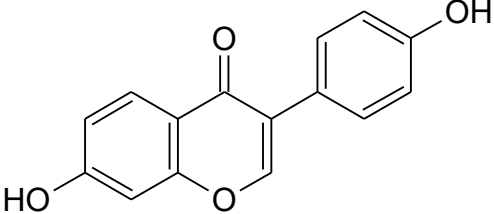
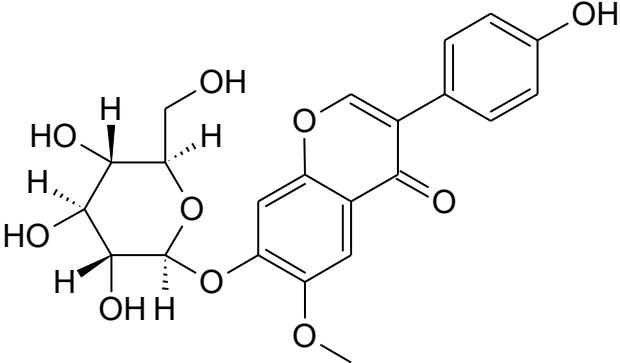
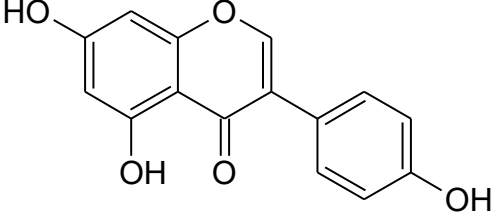


Figure S3. Chemical structure of the main phenolic acids present in *S. hispanica* seeds.

Compound	Chemical structure
Flavonoid aglycones Apigenin	 <chem>Oc1ccc(cc1)Oc2cc(=O)c3cc(O)cc(O)c3c2</chem>
Kaempferol	 <chem>Oc1ccc(cc1)Oc2c(O)c(=O)c3cc(O)cc(O)c3c2</chem>
Quercetin	 <chem>Oc1ccc(cc1)Oc2c(O)c(=O)c3cc(O)cc(O)c3c2</chem>
Myricetin	 <chem>Oc1ccc(cc1)Oc2c(O)c(=O)c3cc(O)cc(O)c3c2</chem>

Flavonoid glycosides	Rutoside	 <p>The chemical structure of Rutoside consists of a quercetin aglycone linked to a rhamnose sugar at the 3-position and a glucose sugar at the 1-position. The quercetin core features a 3,5,7-trihydroxyflavone skeleton. The rhamnose is in its cyclic form with hydroxyl groups at C-2, C-4, and C-6. The glucose is also in its cyclic form with hydroxyl groups at C-2, C-4, and C-6.</p>
Isoflavones	Daidzenin	 <p>The chemical structure of Daidzenin is an isoflavone with a 3-phenyl-4-hydroxyisoflavone skeleton. It features a benzopyrone core with a hydroxyl group at the 4-position and a phenyl ring at the 3-position.</p>
	Glycitin	 <p>The chemical structure of Glycitin is a glycosylated isoflavone. It consists of a daidzein aglycone linked to a glucose sugar at the 7-position. The daidzein core has a 3-phenyl-4-hydroxyisoflavone skeleton. The glucose is in its cyclic form with hydroxyl groups at C-2, C-4, and C-6.</p>
	Genistein	 <p>The chemical structure of Genistein is an isoflavone with a 3-phenyl-4,5,7-trihydroxyisoflavone skeleton. It features a benzopyrone core with hydroxyl groups at the 4, 5, and 7 positions and a phenyl ring at the 3-position.</p>

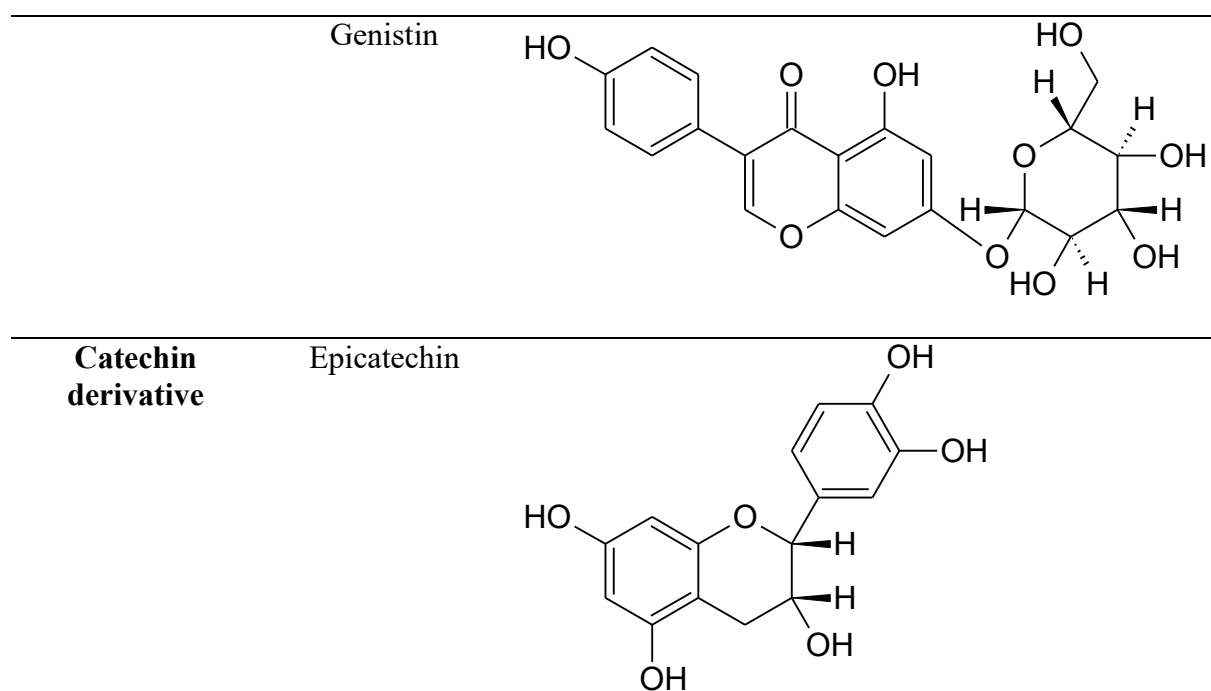


Figure S4. Chemical structures of the main flavonoids and epicatechin present in *S. hispanica* seeds.