

**Supplementary Table 1. Abiotic and biotic factors impacting accumulation of phenylpropanoid constituent's in staple cereals and food legumes.**

<b>Crop</b>	<b>Factor</b>	<b>Compound</b>	<b>References</b>
<i>Abiotic stress</i>			
<b>Legumes</b>			
Common bean ( <i>Phaseolus vulgaris</i> L.)	Drought	Polyphenols	Ovando-Martínez et al., 2014
Soybean ( <i>Glycine max</i> (L.) Merr)	UV-B, drought, CO <sub>2</sub> , temperature	Isoflavone	Caldwell et al., 2005; Kim et al., 2011; Carrera and Dardanelli, 2015
Pea ( <i>Pisum sativum</i> L.)	Drought	Total Phenolic	Juzoń et al., 2013
Mungbean ( <i>Vigna radiata</i> (L.) R. (Wilczek)	Drought, ozone	Total Phenolic	Afzal et al., 2014; Chaudhary and Agrawal, 2015
<b>Cereals</b>			
Maize ( <i>Zea mays</i> L.)	Drought	Flavonoids and phenolic	Ali et al., 2010
Barley ( <i>Hordeum vulgare</i> L.)	Drought, salinity	Total phenolic	Ahmed et al., 2013a
Rice ( <i>Oryza sativa</i> L.)	Salinity, CO <sub>2</sub> , $\gamma$ -irradiation, ozone	Phenolic, anthocyanins, and proanthocyanins	Chunthaburee et al., 2015; Wang and Frei, 2011; Goufo et al., 2014; Zhu et al., 2010
Wheat ( <i>Triticum</i> spp.)	Drought, nitrogen, UV	Total phenolic acids, free phenolic acids, flavonoids, and lutein	Chakraborty and Pradhan, 2012; Lukow et al., 2012; Stumpf et al., 2015
<i>Biotic Stress</i>			
<b>Legumes</b>			
Cowpea ( <i>Vigna unguiculata</i> (L.) Walp.); chickpea ( <i>Cicer arietinum</i> L.); soybean,	Postharvest pests	Phenolic acids	Sharma and Thakur, 2014
Common bean, cowpea, and soybean	Pathogens, fungus, bacteria & insects	Flavonoids and isoflavonoids	Treutte, 2006; Rubiales et al., 2015
Soybean	Host-plant defense	Isoflavonoids	Mapope and Dakora, 2013
<b>Cereals</b>			
Wheat ( <i>Triticum aestivum</i> L.)	<i>Fusarium</i> species	Phenolic acids	McKeehen et al., 1999
Barley ( <i>Hordeum vulgare</i> L.)	<i>Fusarium</i> species	Phenolic acids	Eggert et al., 2010
Maize ( <i>Zea mays</i> L.)	Postharvest pests	Phenolic acids	Ahmed et al., 2013b; García-Lara and Bergvinson, 2014
Rice ( <i>Oryza sativa</i> L.)	Postharvest pests	Phenolic acids	Bamisile et al., 2014