

**S2 Table. MS-identified flavonoids of Setaria grown under greenhouse and field conditions.**

Type of aglucon	Samples from greenhouse		Samples from field		
	Control	UV	1300 m	1800 m	2500 m
Flavanon	Poncirin (N;E)	Poncirin (N;E)	Poncirin (E; N)	Poncirin (E; N)	Poncirin (E; N)
	---	Hesperidin (E)	---	Hesperidin (E; N)	Hesperidin (E; N)
Flavonol	Kaempferol-3-O-rutinoside (N)	Kaempferol-3-O-rutinoside (N)	Kaempferol-3-O-rutinoside (E)	K-3-O-rutinoside (E;N)	K-rut.(E;N)/K-7-O-neohesperid. (E)
Flavon	Luteolin (N)/Orientin (E)	Luteolin (N)/Orientin (E)	Luteolin (E)/Orientin (N)	Luteolin (N)/Orientin (E;N)	Luteolin (N)/Orientin (E)
	Tricin (N; E)	Tricin (N;E)	Tricin (E)	Tricin (E)	Tricin (E)
	Vitexin-2"-rhamnoside (N,E)	Vitexin-2"-rhamnoside (N;E)	Vitexin-2"-rhamnoside (E; N)	Vitexin-2"-rhamnoside (E)	Vitexin-2"-rhamnoside (E; N)/Vitexin (E; N)
	Saponarin (E)	Saponarin (E)	Saponarin (E)	---	Saponarin (E)
	Scoparin (E)	Scoparin (E)	---	---	---
Anthocyanidin conj	---	---	Cyanidin* (N)	Cyanidin* (N)	Cyanidin* (N)

Flavonoids were extracted with aqueous HCl-MeOH and defatted with petrolether (E) or harvested with nanoparticles (N).

\* Cyanidin 3-O-[2"-O-(2'''-O-(sinapoyl) xylosyl) 6"-O-(p-O-(glucosyl) p-coumaroyl) glucoside] 5-O-glucoside, K = Kaempferol