Supplementary Materials
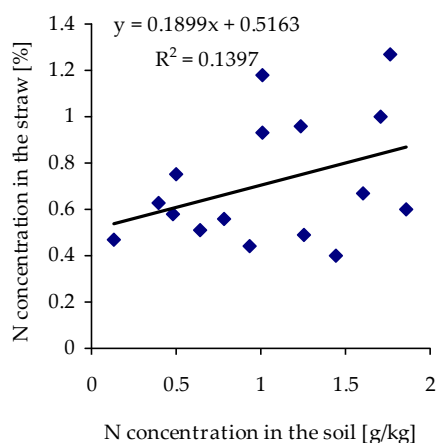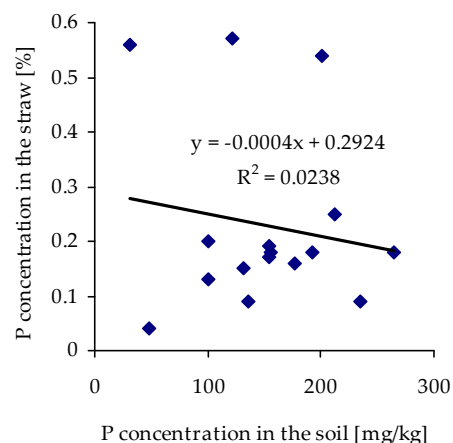

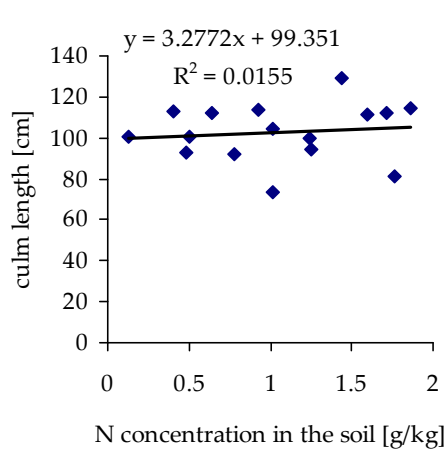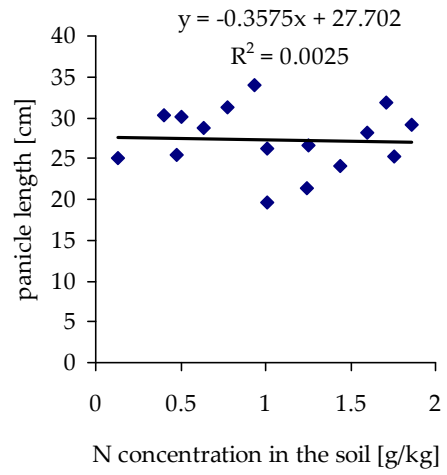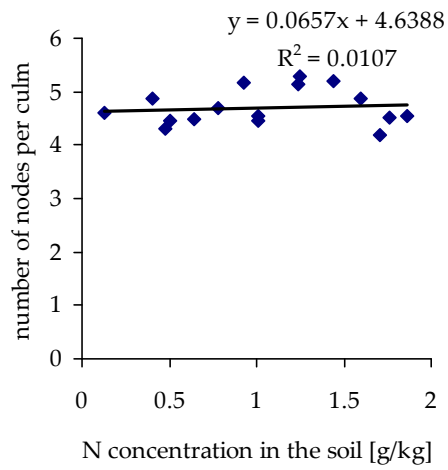(**a**)

(**b**)
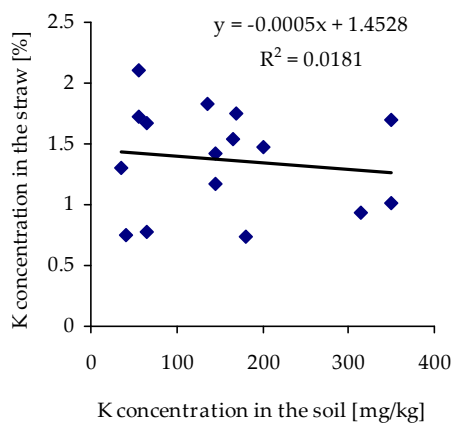
(**c**)

Figure S1. Relationship between: **(a)** the concentration of N in the straw [% dry matter] and N concentration in the soil ($p < 0.05$; $r = 0.37$); **(b)** the concentration of P in the straw [% DM] and P concentration in the soil ($p < 0.05$; $r = - 0.15$, and **(c)** the concentration of K in the straw [% DM] and K concentration in the soil ($p < 0.05$; $r = - 0.13$).
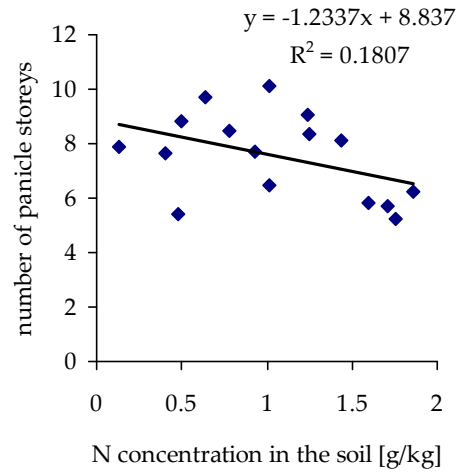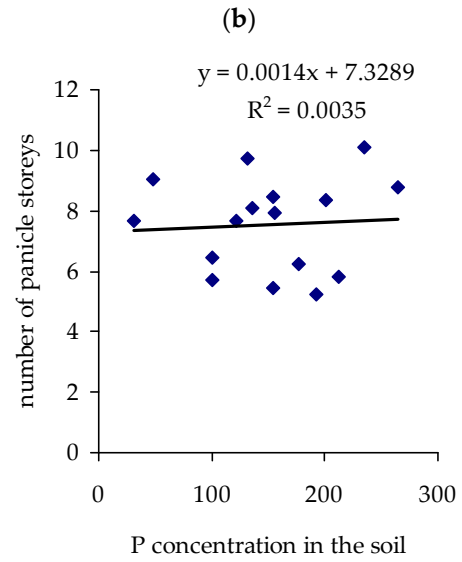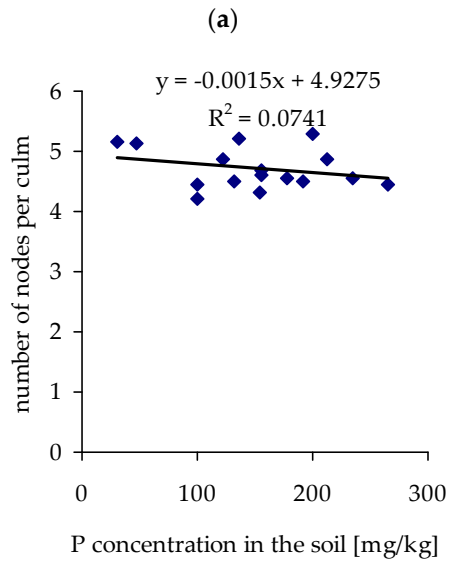
(**a**)

(**b**)

(**c**)   (d)

Figure S2. Relationship between the N concentration in the soil and selected morphological features of *A. spica-venti*: **(a)** culm length ($p < 0.05$; $r = 0.12$), **(b)** panicle length ($p < 0.05$; $r = -0.05$), **(c)** number of nodes per culm ($p < 0.05$; $r = 0.10$), and **(d)** number of panicle storeys ($p < 0.05$; $r = -0.43$).

(**a**)

(**b**)
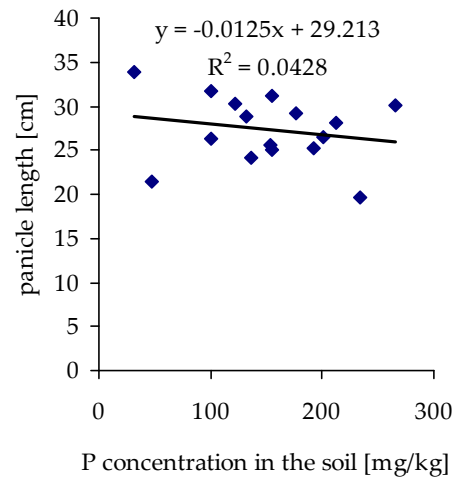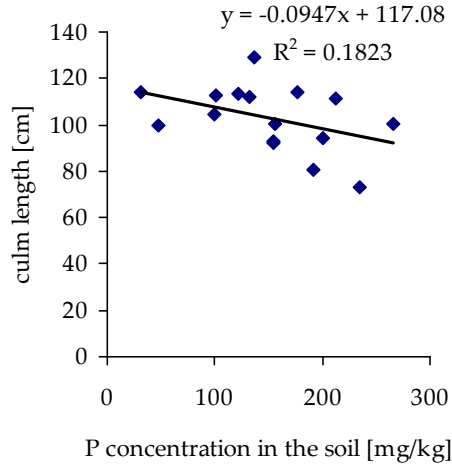
(**c**)

(**d**)

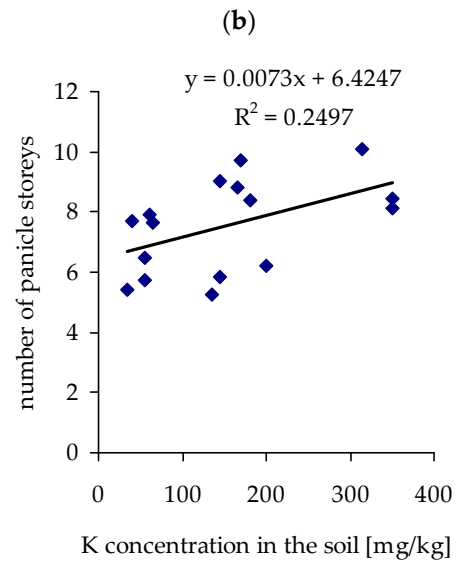**Figure S.3** Relationship between the P concentration in the soil and selected morphological features of *A. spica-venti*: **(a)** culm length ($p < 0.05$; $r = - 0.43$), **(b)** panicle length ($p < 0.05$; $r = - 0.21$), **(c)** number of nodes per culm ($p < 0.05$; $r = - 0.27$), and **(d)** number of panicle storeys ($p < 0.05$; $r = 0.06$).
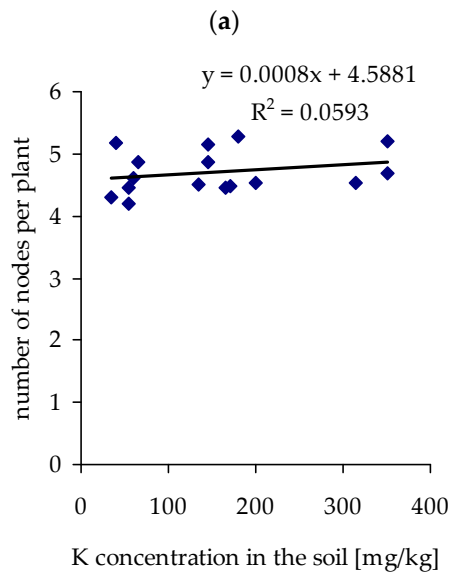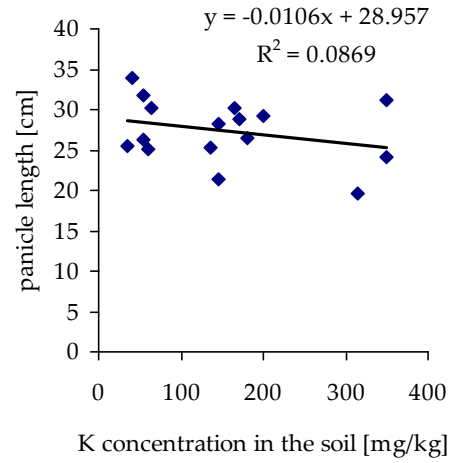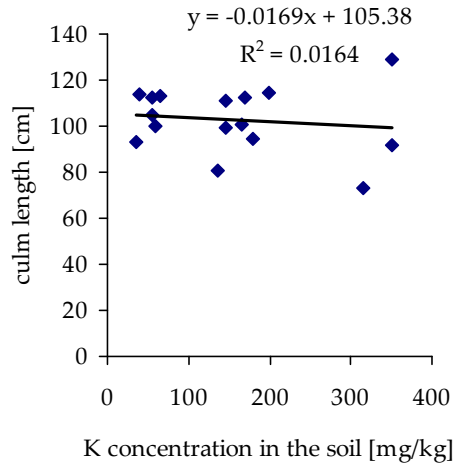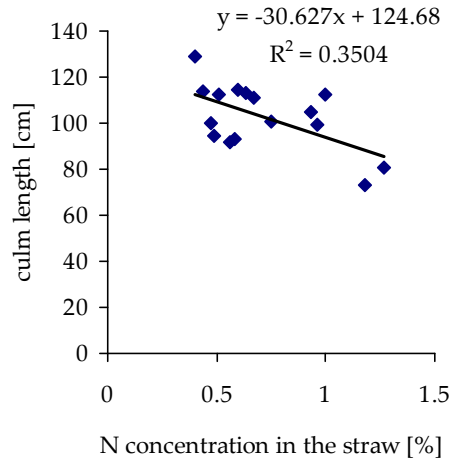
(**a**)

(**b**)

(**c**)

(**d**)

Figure S4 Relationship between the K concentration in the soil and selected morphological features of *A. spica-venti*: **(a)** culm length ($p < 0.05$; $r = -0.13$), **(b)** panicle length ($p < 0.05$; $r = -0.29$), **(c)** number of nodes per culm ($p < 0.05$; $r = 0.24$), and **(d)** number of panicle storeys ($p < 0.05$; $r = 0.50$).

(**a**)

(**b**)

(**c**)

(**d**)

Figure S5. Relationship between the N concentration in the straw [% dry matter] and selected morphological features of *A. spica-venti*: **(a)** culm length ($p < 0.05$; $r = -0.59$), **(b)** panicle length ($p < 0.05$; $r = -0.40$), **(c)** number of nodes per culm ($p < 0.05$; $r = -0.42$), and **(d)** number of panicle storeys ($p < 0.05$; $r = -0.16$).
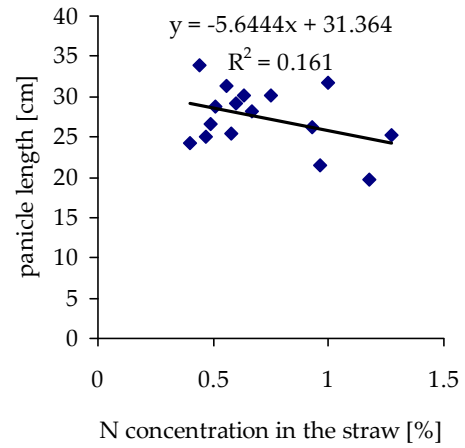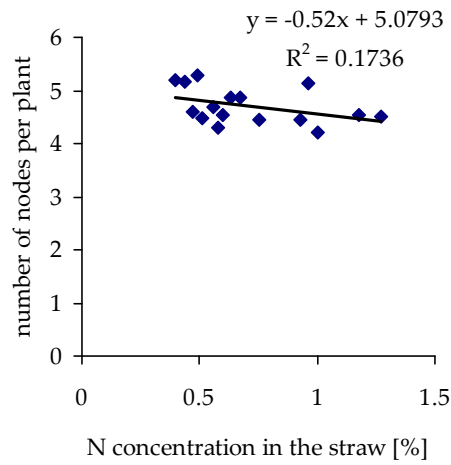
(**a**)

(**b**)

(**c**)
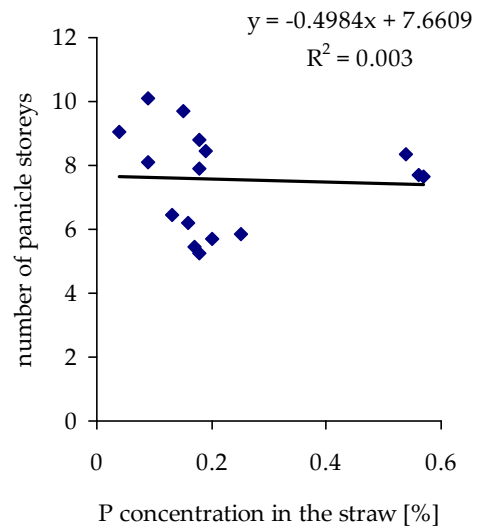
(**d**)

Figure S6. Relationship between the P concentration in the straw [% dry matter] and selected morphological features of *A. spica-venti*: **(a)** culm length ($p < 0.05$; $r = 0.17$), **(b)** panicle length ($p < 0.05$; $r = 0.55$), **(c)** number of nodes per culm ($p < 0.05$; $r = 0.44$), and **(d)** number of panicle storeys ($p < 0.05$; $r = -0.05$).
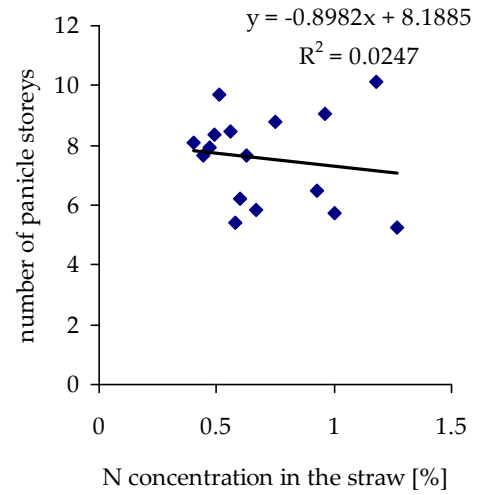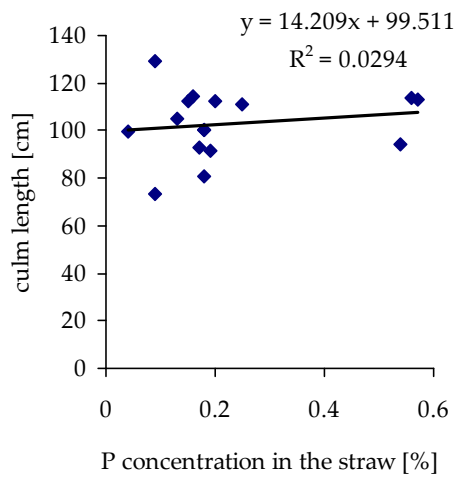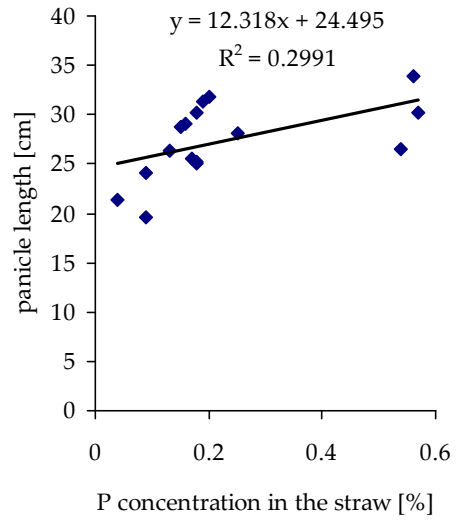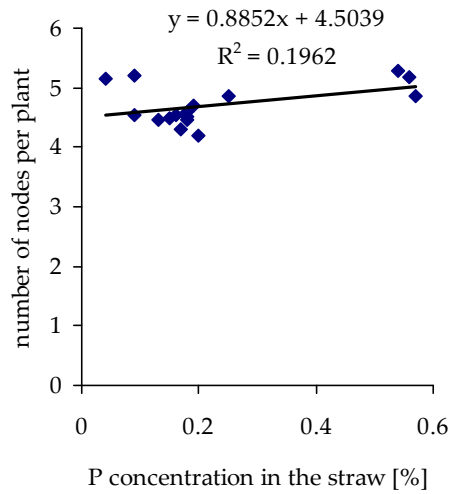
Figure S7. Relationship between the K concentration in the straw [% dry matter] and selected morphological features of *A. spica-venti*: **(a)** culm length ($p < 0.05$; $r = -0.05$), **(b)** panicle length ($p < 0.05$; $r = 0.18$), **(c)** number of nodes per culm ($p < 0.05$; $r = -0.75$), and **(d)** number of panicle storeys ($p < 0.05$; $r = -0.37$).
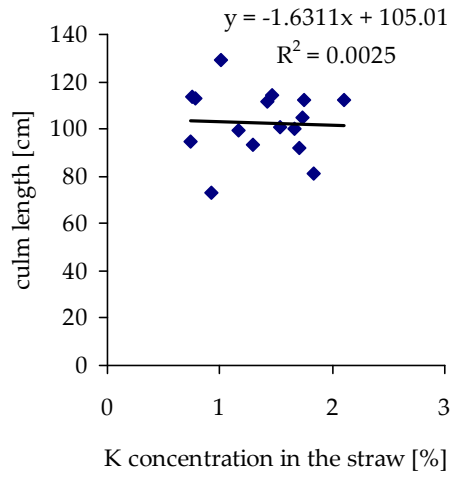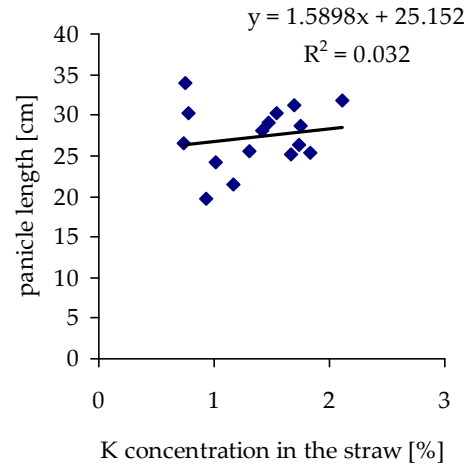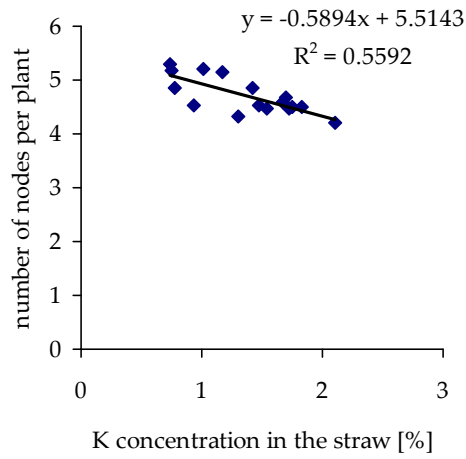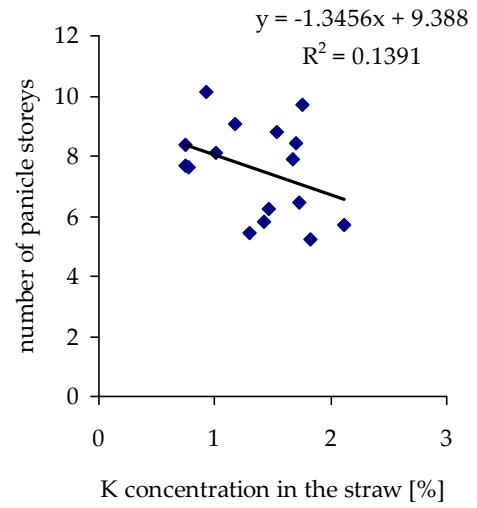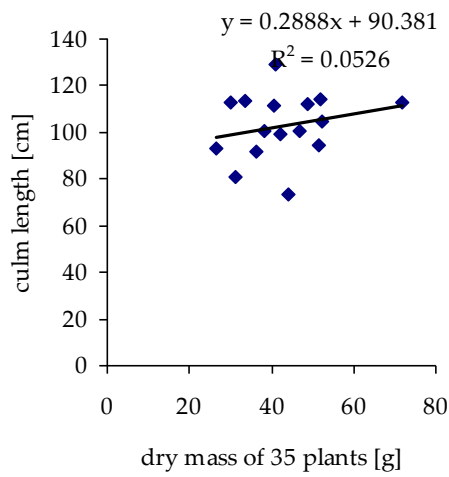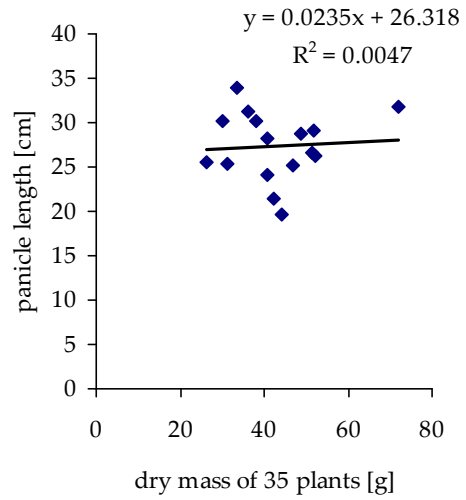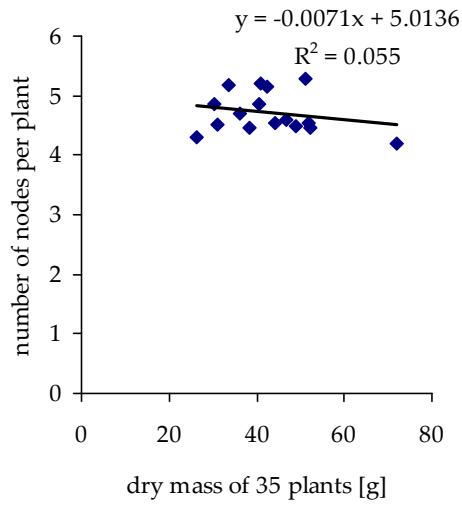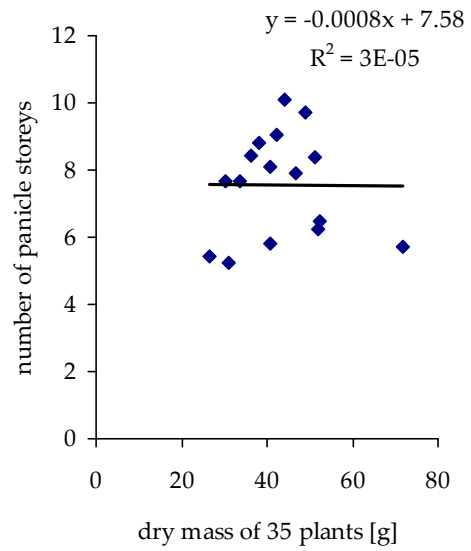
$y = 0.2888x + 90.381$

$R^2 = 0.0526$

culm length [cm]

dry mass of 35 plants [g]

(**a**)

$y = 0.0235x + 26.318$

$R^2 = 0.0047$

panicle length [cm]

dry mass of 35 plants [g]

(**b**)

$y = -0.0071x + 5.0136$

$R^2 = 0.055$

number of nodes per plant

dry mass of 35 plants [g]

(**c**)

$y = -0.0008x + 7.58$

$R^2 = 3E-05$

number of panicle storeys
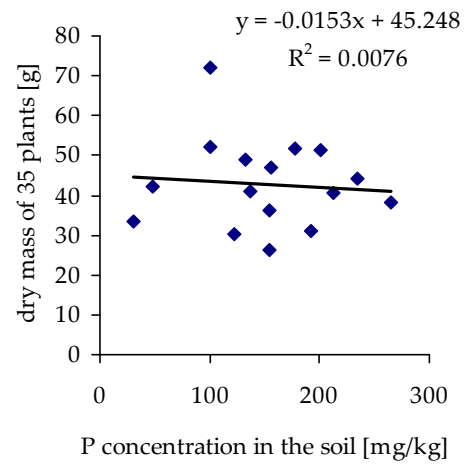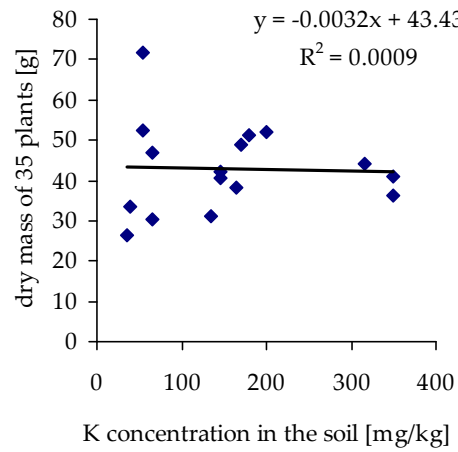
dry mass of 35 plants [g]

(**d**)

Figure S8. Relationship between the dry mass of 35 plants of *A. spica-venti* and selected morphological features of *A. spica-venti*: (**a**) culm length ($p < 0.05$; $r = 0.23$), (**b**) panicle length ($p < 0.05$; $r = 0.07$), (**c**) number of nodes per culm ($p < 0.05$; $r = -0.23$), and (**d**) number of panicle storeys ($p < 0.05$; $r = -0.01$).
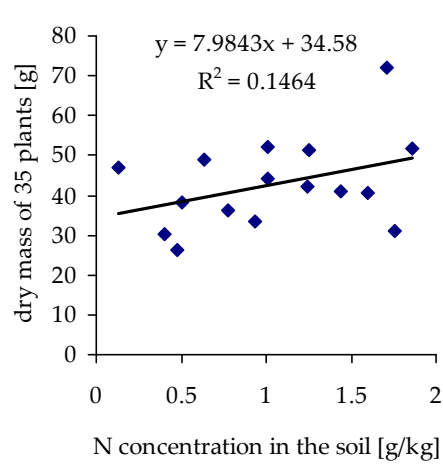
(**a**)

(**b**)

(**c**)

Figure S9. Relationship between the dry mass of 35 plants of *A. spica-venti* and the concentration of N, P, K in the soil: **(a)** N ($p < 0.05$; $r = 0.38$); **(b)** P ($p < 0.05$; $r = - 0.08$), and **(c)** K ($p < 0.05$; $r = - 0.03$).
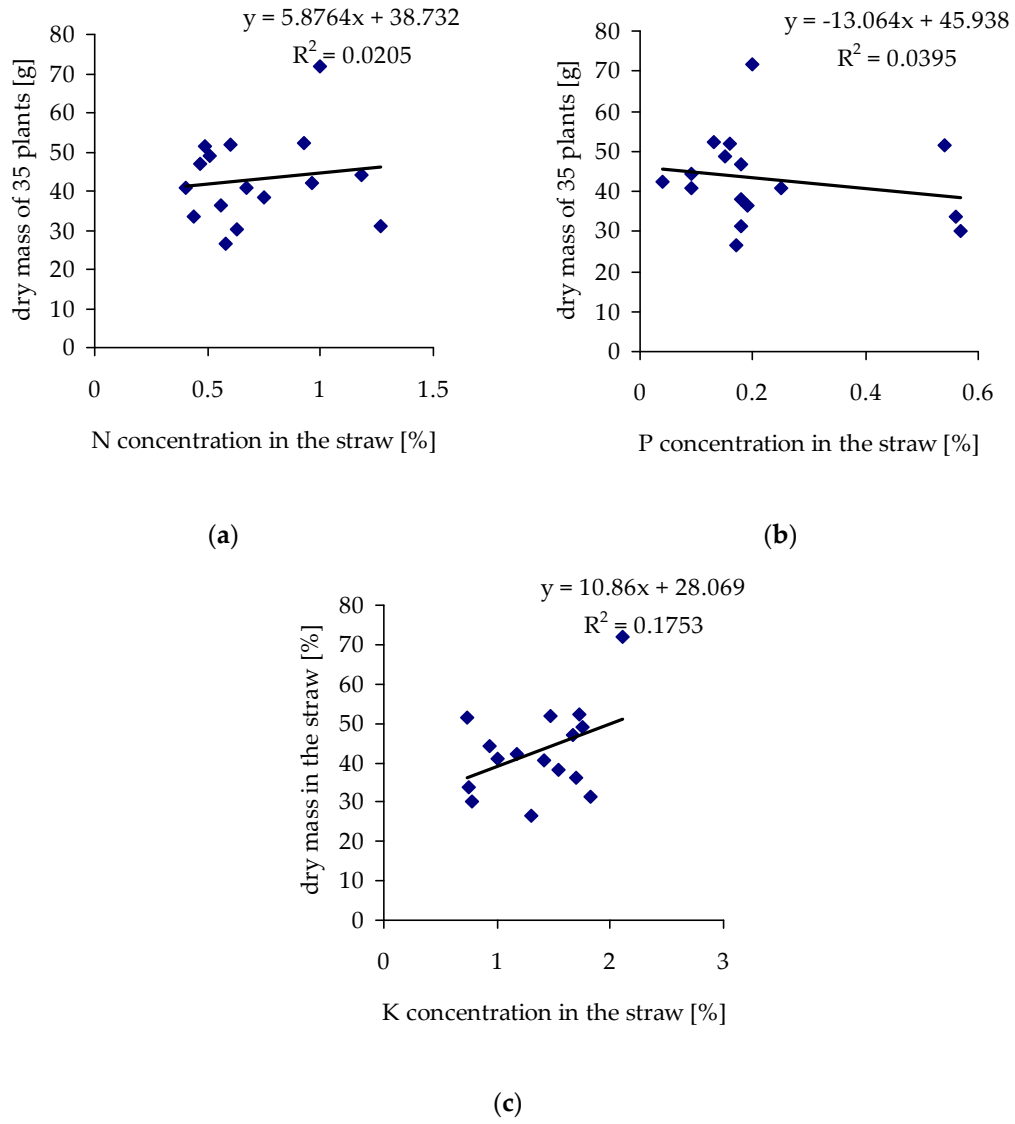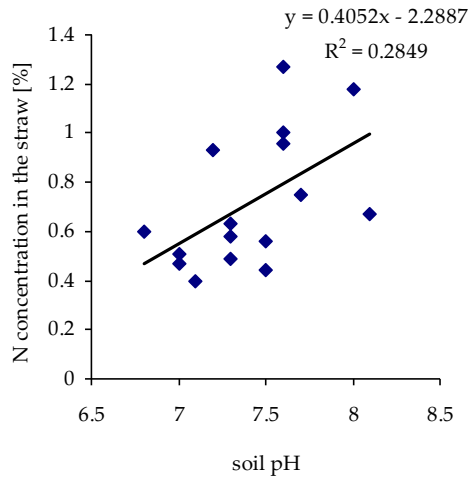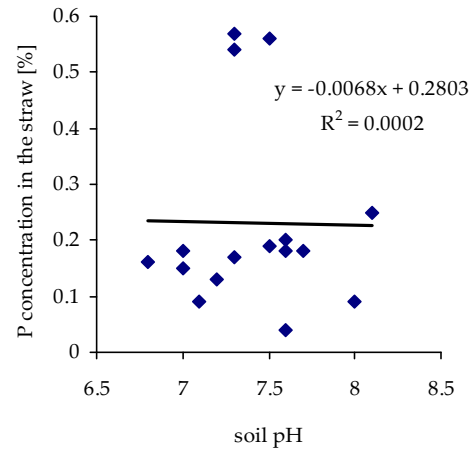
$$y = 5.8764x + 38.732$$
$$R^2 = 0.0205$$

(**a**)

$$y = -13.064x + 45.938$$
$$R^2 = 0.0395$$

(**b**)

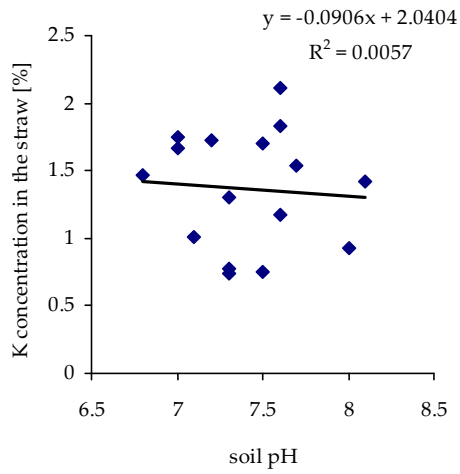$$y = 10.86x + 28.069$$
$$R^2 = 0.1753$$

(**c**)

Figure S10. Relationship between the dry mass of 35 plants of *A. spica-venti* and the concentration of N, P, K in the straw [% dry matter]: **(a)** N ($p < 0.05$; $r = 0.14$); **(b)** P ($p < 0.05$; $r = -0.20$), and **(c)** K ($p < 0.05$; $r = 0.42$).
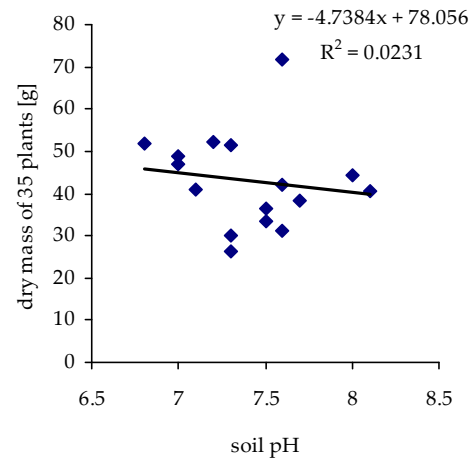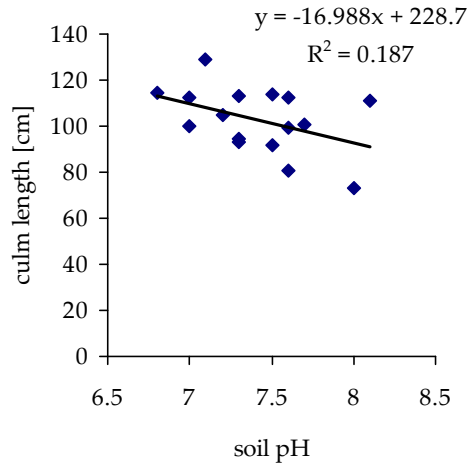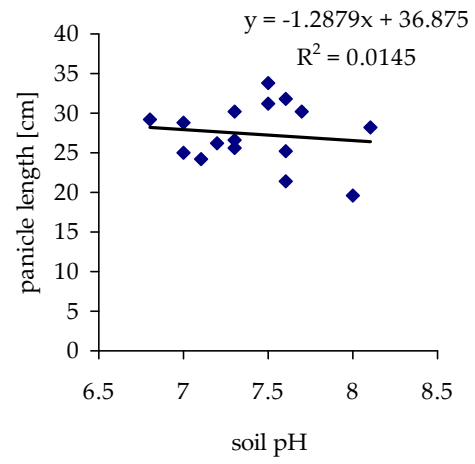
(**a**)
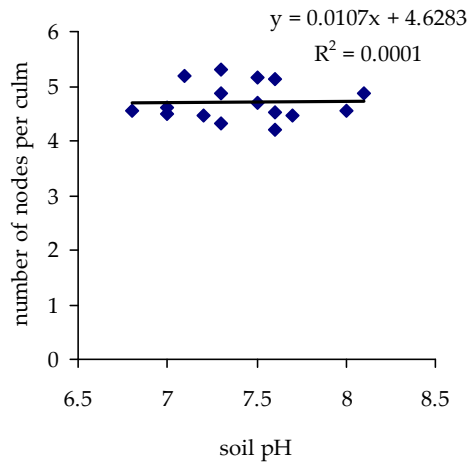

(**b**)

(**c**)

(**d**)

Figure S11. Relationship between the soil pH and the concentration of N, P, K in the straw [% dry matter] and dry mass of 35 plants: **(a)** N ($p < 0.05$; $r = 0.53$); **(b)** P ($p < 0.05$; $r = -0.01$), **(c)** K ($p < 0.05$; $r = -0.08$), and **(d)** mass of 35 plants ($p < 0.05$; $r = -0.15$).
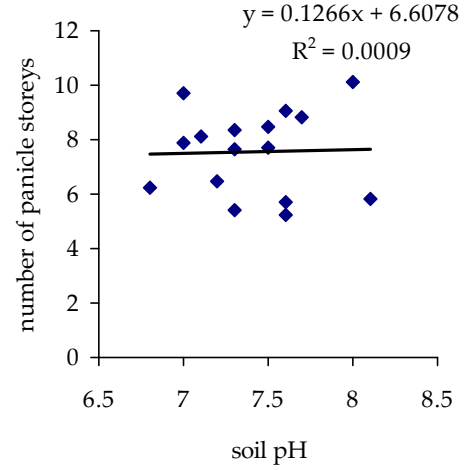
$y = -16.988x + 228.7$

$R^2 = 0.187$

(**a**)

$y = -1.2879x + 36.875$

$R^2 = 0.0145$

(**b**)

$y = 0.0107x + 4.6283$

$R^2 = 0.0001$

(**c**)

$y = 0.1266x + 6.6078$

$R^2 = 0.0009$

(**d**)

Figure S12. Relationship between the soil pH and selected morphological features of *A. spica-venti*: **(a)** culm length ($p < 0.05$; $r = -0.43$), **(b)** panicle length ($p < 0.05$; $r = -0.12$), **(c)** number of nodes per culm ($p < 0.05$; $r = 0.01$), and **(d)** number of panicle storeys ($p < 0.05$; $r = 0.03$).