**Supplementary Tabel 1. Origin and nodulation types of Myanmar indigenous *Bradyrhizobium* strains**

|  |  |  |
| --- | --- | --- |
| Species name  (Cluster) | Indigenous isolates | Nodulation type |
| *B. liaoningense* (Bl1) | AHY3-2, AHY6-1, BLY3-4, BLY6-5,  SMY3-1, SMY6-1, MMY3-1, MMY6-3, | Type A |
| *B. liaoningense* (Bl2) | MMY3-2, MMY6-9 | Type A |
| *B. japonicum* (Bj1) | SAY3-7 | Type A |
| *Bradyrhizobium* spp. (Bs2) | AHY3-6, 9 | Type A |
| *B. yuanmingense* (By1) | SMY6-4, 8, 10 | Type A |
| *B. elkanii* (Be1) | SAY3-4, SAY6-5 | Type A |
| *B. elkanii* (Be2) | AHY6-8, SAY3-1, SAY6-6, SMY3- 5, | Type A |
| *B. elkanii* (Be3) | AHY3-1, AHY6-2 | Type A |
| *B. elkanii* (Be4) | BLY3-1, BLY6-2, SAY3-2, | Type A |
| *B. elkanii* (Be5) | SAY3-5, SAY6-2 | Type A |
| *B. japonicum* (Bj2) | SAY3-3, 10, SAY6-1, SAY6-4, SHY3-10 | Type B |
| *B. elkanii* (Be3) | BLY3-8, BLY6-1 | Type B |
| *Bradyrhizobium* spp. (Bs3) | SHY3-1, 2, 3, 4, 5, 6, 7, 8, 9  SHY6-1, 2, 3, 4, 5, 6, 7, 8, 9, 10 | Type B |

Source: Htwe *et al*. (2015a)

**Supplementary Tabel 2.** Effect of inoculation of *Bradyrhizobium* type A strains on nodule number (NN), nodule, shoot dry weight (SDW) and root dry weight (RDW) of Yezin-6 soybean variety at 30 days after sowing.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | NN  (No. plant-1) | NDW  (mg plant-1) | RDW  (g plant-1) | SDW  (g plant-1) |
| AHY3-1 | 22.7 ± 2.4 b | 51.47 ± 1.16 ab | 0.28 ± 0.05 a | 0.72 ± 0.07 a |
| AHY3-2 | 10.0 ± 0.8 e | 41.07 ± 0.53 bcd | 0.33 ± 0.05 a | 0.70 ± 0.11 a |
| AHY3-6 | 17.0 ± 0.8 cd | 42.03 ± 1.62 bc | 0.32 ± 0.07 a | 0.73 ± 0.10 a |
| AHY3-9 | 7.7 ± 1.3 e | 30.27 ± 2.05 e | 0.31 ± 0.07 a | 0.62 ± 0.08 a |
| AHY6-1 | 16.3 ± 0.5 cd | 47.60 ± 1.77 ab | 0.24 ± 0.01 a | 0.71 ± 0.11 a |
| AHY6-2 | 28.3 ± 1.7 a | 55.90 ± 3.92 a | 0.27 ± 0.03 a | 0.66 ± 0.05 a |
| AHY6-8 | 28.3 ± 1.7a | 48.57 ± 5.30 ab | 0.24 ± 0.02 a | 0.78 ± 0.07 a |
| BLY3-1 | 12.0 ± 0.8 de | 34.27 ± 0.41 cde | 0.24 ± 0.02 a | 0.71 ± 0.01 a |
| BLY3-4 | 8.7 ± 1.3 e | 25.87 ± 5.45 e | 0.22 ± 0.04 a | 0.64 ± 0.03 a |
| BLY6-2 | 10.7 ± 1.7 e | 35.43 ± 0.99 cde | 0.27 ± 0.01 a | 0.68 ± 0.03 a |
| BLY6-5 | 19.7 ± 1.3 bc | 50.83 ± 3.51 ab | 0.29 ± 0.04 a | 0.84 ± 0.08 a |
| MMY3-1 | 18.3 ± 1.3 bc | 46.53 ± 1.69 ab | 0.27 ± 0.03 a | 0.84 ± 0.05 a |
| MMY3-2 | 20.3 ± 2.1 bc | 46.13 ± 2.05 ab | 0.28 ± 0.06 a | 0.73 ± 0.11 a |
| MMY6-3 | 12.3 ± 0.9 de | 27.83 ± 2.93 e | 0.26 ± 0.05 a | 0.72 ± 0.13 a |
| MMY6-9 | 10.7 ± 0.5 e | 27.07 ± 4.74 e | 0.24 ± 0.08 a | 0.68 ± 0.08 a |
| SAY3-1 | 16.7 ± 0.5 cd | 34.50 ± 0.94 cde | 0.21 ± 0.03 a | 0.67 ± 0.01 a |
| SAY3-2 | 18.7 ± 0.9 bc | 43.10 ± 0.50 bc | 0.23 ± 0.01 a | 0.75 ± 0.02 a |
| SAY3-4 | 18.0 ± 0.8 bc | 43.10 ± 1.88 bc | 0.24 ± 0.04 a | 0.69 ± 0.05 a |
| SAY3-5 | 18.0 ± 1.6 bc | 42.57 ± 0.91 bc | 0.22 ± 0.07 a | 0.68 ± 0.06 a |
| SAY3-7 | 17.0 ± 0.8 cd | 54.60 ± 1.34 a | 0.24 ± 0.04 a | 0.70 ± 0.03 a |
| SAY6-2 | 17.0 ± 0.8 cd | 46.73 ± 1.52 ab | 0.27 ± 0.07 a | 0.73 ± 0.09 a |
| SAY6-5 | 19.3 ± 1.9 bc | 41.07 ± 0.53 bcd | 0.22 ± 0.00 a | 0.68 ± 0.05 a |
| SAY6-6 | 18.3 ± 0.5 bc | 46.90 ± 2.43 ab | 0.25 ± 0.03 a | 0.68 ± 0.05 a |
| SMY3-1 | 19.0 ± 2.9 bc | 33.43 ± 1.43 cde | 0.31 ± 0.05 a | 0.70 ± 0.03 a |
| SMY3-5 | 22.7 ± 2.6 b | 53.70 ± 3.96 a | 0.23 ± 0.04 a | 0.79 ± 0.04 a |
| SMY6-1 | 18.0 ± 0.8 bc | 46.03 ± 0.26 ab | 0.29 ± 0.01 a | 0.60 ± 0.07 a |
| SMY6-4 | 12.3 ± 0.5 de | 30.83 ± 3.79 de | 0.34 ± 0.07 a | 0.75 ± 0.04 a |
| SMY6-8 | 11.7 ± 0.5 de | 30.13 ± 2.30 e | 0.32 ± 0.03 a | 0.76 ± 0.02 a |
| SMY6-10 | 12.3 ± 0.5 de | 28.03 ± 3.73 e | 0.33 ± 0.07 a | 0.68 ± 0.04 a |
| USDA110 | 19.7 ± 1.3 bc | 47.57 ± 3.62 ab | 0.29 ± 0.01 a | 0.75 ± 0.03 a |

Mean value ± standard deviation (SD) in each column at each variety followed by the same letter is not significantly different at *P* < 0.05 (Tukey’s test). NN; nodule number; NDW; nodule dry weight; RDW; root dry weight; SDW; shoot dry weight.

**Supplementary Tabel 3.** Effect of inoculation of *Bradyrhizobium* type B strains on NN, NDW, RDW and SDW of Yezin-3 soybean variety at 30 days after sowing.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strain | NN  (No. plant-1) | NDW  (mg plant-1) | RDW  (g plant-1) | SDW  (g plant-1) |
| BLY3-8 | 24.3 ± 1.2 ab | 51.83 ± 1.43 a | 0.25 ± 0.03 a | 0.76 ± 0.06 a |
| BLY6-1 | 24.0 ± 1.4 abc | 50.20 ± 1.50 abc | 0.19 ± 0.02 a | 0.77 ± 0.04 a |
| SAY3-3 | 24.7 ± 1.7 ab | 52.70 ± 2.76 a | 0.20 ± 0.01 a | 0.61 ± 0.03 a |
| SAY3-10 | 29.0 ± 4.3 a | 62.87 ±9.80 a | 0.20 ± 0.07 a | 0.59 ± 0.18 a |
| SAY6-1 | 11.3 ± 3.1 d | 25.60 ± 2.12 d | 0.17 ± 0.02 a | 0.49 ± 0.11 a |
| SAY6-4 | 11.7 ± 4.2 d | 28.80 ±7.00 d | 0.31 ± 0.06 a | 0.87 ± 0.19 a |
| SHY3-1 | 28.3 ± 1.2 a | 61.70 ± 2.71 a | 0.21 ± 0.06 a | 0.69 ± 0.19 a |
| SHY3-2 | 11.7 ± 4.0 d | 34.47 ± 3.98 d | 0.24 ± 0.07 a | 0.73 ± 0.04 a |
| SHY3-3 | 25.0 ± 1.6 ab | 56.03 ± 3.75 a | 0.25 ± 0.02 a | 0.73 ± 0.04 a |
| SHY3-4 | 10.7 ± 2.9 d | 33.43 ± 1.87 d | 0.28 ± 0.04 a | 0.69 ± 0.05 a |
| SHY3-5 | 10.7 ± 0.9 d | 29.73 ± 4.38 d | 0.16 ± 0.02 a | 0.49 ± 0.13 a |
| SHY3-6 | 8.7 ± 2.6 d | 34.33 ± 4.90 d | 0.20 ± 0.11 a | 0.54 ± 0.18 a |
| SHY3-7 | 11.7 ± 4.7 d | 34.37 ± 5.00 d | 0.20 ± 0.05 a | 0.68 ± 0.03 a |
| SHY3-8 | 11.0 ± 0.8 d | 33.40 ± 7.01 d | 0.35 ± 0.06 a | 0.76 ± 0.02 a |
| SHY3-9 | 9.3 ± 4.2 d | 33.80 ± 3.40 d | 0.19 ± 0.02 a | 0.65 ± 0.08 a |
| SHY3-10 | 12.3 ± 3.3 d | 34.97 ± 3.56 cd | 0.19 ± 0.11 a | 0.60 ± 0.29 a |
| SHY6-1 | 26.7 ± 2.5 a | 51.13 ± 0.60 a | 0.28 ± 0.02 a | 0.68 ± 0.05 a |
| SHY6-2 | 11.3 ± 2.6 d | 34.47 ± 1.67 d | 0.21 ± 0.04 a | 0.71 ± 0.08 a |
| SHY6-3 | 13.0 ± 2.2 cd | 35.43 ± 0.76 bcd | 0.18 ± 0.02 a | 0.57 ± 0.07 a |
| SHY6-4 | 13.0 ± 2.4 cd | 35.53 ± 0.62 bcd | 0.21 ± 0.07 a | 0.65 ± 0.16 a |
| SHY6-5 | 27.0 ± 4.1 a | 50.53 ± 1.88 ab | 0.23 ± 0.10 a | 0.70 ± 0.27 a |
| SHY6-6 | 24.3 ± 0.5 ab | 50.93 ± 0.26 a | 0.18 ± 0.05 a | 0.54 ± 0.16 a |
| SHY6-7 | 14.3 ± 0.9 bcd | 32.43 ± 5.85 d | 0.19 ± 0.04 a | 0.68 ± 0.17 a |
| SHY6-8 | 12.7 ± 0.9 d | 34.07 ± 1.31 d | 0.13 ± 0.02 a | 0.48 ± 0.07 a |
| SHY6-9 | 10.7 ± 5.6 d | 32.77 ± 5.94 d | 0.21 ± 0.04 a | 0.70 ± 0.08 a |
| SHY6-10 | 27.7 ± 1.7 a | 50.77 ± 1.53 a | 0.22 ± 0.12 a | 0.60 ± 0.36 a |
| USDA110 | 29.0 ± 0.8 a | 57.57 ± 2.44 a | 0.23 ± 0.07 a | 0.68 ± 0.18 a |

Mean value ± SD in each column at each variety followed by the same letter is not significantly different at *P* < 0.05 (Tukey’s test).