**Table S1.** The average actual stands of crops and the number of seeds planted for each cropping system

A. The average actual stands of legume crops achieved as opposed to the number of seeds planted for both row planted and mixed intercropped (in all cropping systems) a

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Treatments | Legumes plants/plot at planting | Legumes plants/ha at planting | Legumes plants/plot at harvesting | Legumes plants/ha at harvesting | Legumes plants/plot at harvesting | Legumes plants/ha at harvesting |
| In both years | 2017 | 2018 |
| 1:1 row ratio= finger millet: haricot bean | 330 | 229167 | 321. | 223380 | 228 | 158329 |
| 2:1 row ratio= finger millet: haricot bean | 180 | 125,000 | 174 | 121296 | 180 | 124995 |
| 3:1 row ratio= finger millet: haricot bean | 120 | 83,333 | 117 | 81713 | 118 | 81940 |
| 100:75= finger millet: haricot bean | 330 | 229,167 | 319 | 221528 | 227 | 157634 |
| 100:50= finger millet: haricot bean | 180 | 125,000 | 167 | 116435 | 177 | 122912 |
| 100:25= finger millet: haricot bean | 120 | 83,333 | 113 | 78935 | 118 | 81940 |
| 1:1 row ratio= finger millet: lupine | 330 | 229,167 | 129 | 89583 | 129 | 89579 |
| 2:1 row ratio= finger millet: lupine | 180 | 125,000 | 176 | 122222 | 178 | 123607 |
| 3:1 row ratio= finger millet: lupine | 120 | 83,333 | 117 | 81250 | 117 | 81245 |
| 100:75= finger millet: lupine | 330 | 229,167 | 324 | 225231 | 227 | 157634 |
| 100:50= finger millet: lupine | 180 | 125,000 | 168 | 116898 | 175 | 121523 |
| 100:25= finger millet: lupine | 120 | 83,333 | 115 | 80324 | 116 | 80551 |
| Haricot bean | 360 | 250, 000 | 354 | 246296 | 358 | 248607 |
| Sweet lupine | 360 | 250000 | 351 | 244213 | 360 | 249995 |

aData were combined over sites (South Achefer and Mecha)

B. The average actual stands of finger millet achieved as opposed to the number of seeds planted in rows (in intercropping and sole cropping) (only for row planted) a

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Treatments  | Finger millet plants/plot at planting  | Finger millet plants/ha at planting  | Finger millet plants/plot at harvesting | Finger millet plants/ha at harvesting | Finger millet plants/plot at harvesting | Finger millet plants/ha at harvesting |
|   | In both years | 2017 | 2018 |
| 1:1 row ratio= finger millet: haricot bean | 1200 | 833333 | 1192 | 827778 | 1195 | 829861 |
| 2:1 row ratio= finger millet: haricot bean |  |  | 1196 | 830556 | 1195 | 829861 |
| 3:1 row ratio= finger millet: haricot bean |  |  | 1191 | 826852 | 1196 | 830556 |
| 100:75= finger millet: haricot bean |  |  | 1197 | 831250 | 1200 | 833333 |
| 100:50= finger millet: haricot bean |  |  | 1194 | 829167 | 1196 | 830556 |
| 100:25= finger millet: haricot bean |  |  | 1197 | 831250 | 1195 | 829861 |
| 1:1 row ratio= finger millet: lupine |  |  | 1189 | 825926 | 1192 | 827778 |
| 2:1 row ratio= finger millet: lupine  |  |  | 1188 | 825231 | 1194 | 829167 |
| 3:1 row ratio= finger millet: lupine |  |  | 1191 | 827546 | 1194 | 829167 |
| 100:75= finger millet: lupine |  |  | 1191 | 827083 | 1193 | 828472 |
| 100:50= finger millet: lupine |  |  | 1195 | 829861 | 1195 | 829861 |
| 100:25= finger millet: lupine |  |  | 1195 | 829861 | 1190 | 826389 |
| Sole finger millet planted in row |  |  | 1195 | 830093 | 1198 | 831944 |
| Sole finger millet planted in broadcast |  |  | 1197 | 831250 | 1198 | 831944 |

aData were combined over sites (South Achefer and Mecha)