Table S1. Ambient photosynthetically active radiation (PARA), air temperature (Tair), relative humidity (RHair), air vapor pressure deficit (VPDair), rainfall and irrigation for the three planting dates (PD). The environmental parameters were recorded from the date of planting until the date when photosynthesis measurements were performed on the 3-month-old plants. Environmental parameters for PD-Jun, PD-Nov and PD-Dec were measured during 30 Jun–27 Sep 2015, 10 Nov 2015–23 Feb 2016 and 15 Dec 2015–2 Apr 2016, respectively. The values are daily minima, maxima and means of data collected every 5 min on each day, and the data were then averaged over days. Lower case letters indicate significance differences (*P* < 0.05) among planting dates.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Environment** | **Planting date** | **Value** | | |
| **min** | **max** | **mean** |
| PARA  (µmol /m2 /s) | PD-Jun | 0 | 1998 ± 485 a | 429 ± 129 |
| PD-Nov | 0 | 1664 ± 488 b | 417 ± 57 |
| PD-Dec | 0 | 1587 ± 443 b | 412 ± 54 |
| Tair (oC) | PD-Jun | 25 ± 1 a | 33 ± 3 | 28 ± 2 a |
| PD-Nov | 19 ± 3 b | 33 ± 3 | 25 ± 3 b |
| PD-Dec | 19 ± 3 b | 34 ± 4 | 26 ± 4 b |
|  |  |  |  |  |
| RHair (%) | PD-Jun | 52 ± 11 a | 94 ± 8 a | 77 ± 10 a |
| PD-Nov | 31 ± 9 b | 83 ± 9 b | 57 ± 10 b |
| PD-Dec | 27 ± 9 c | 77 ± 10 c | 52 ± 11 c |
|  |  |  |  |  |
| VPDair (kPa) | PD-Jun | 0.20 ± 0.28 c | 2.55 ± 0.98 c | 1.02 ± 0.59 c |
| PD-Nov | 0.37 ± 0.19 b | 3.58 ± 0.84 b | 1.59 ± 0.41 b |
| PD-Dec | 0.53 ± 0.30 a | 4.03 ± 1.20 a | 1.90 ± 0.68 a |
|  |  | min | max | Total |
| Rainfall (mm) | PD-Jun | 0.0 | 323.0 | 614.3 |
| PD-Nov | 0.0 | 21.0 | 25.6 |
| PD-Dec | 0.0 | 81.0 | 108.1 |
|  |  |  |  |  |
| Irrigation (mm) | PD-Jun | 1.0 | 3.0 | 7.2 |
| PD-Nov | 0.3 | 2.3 | 24.0 |
| PD-Dec | 0.7 | 4.1 | 41.6 |

Table S2. The minima, maxima and means of growth parameters including rate of increase in plant height, rate of leaf production and leaf area index (LAI) of 3-month-old plants of cassava genotypes RY9, RY11, KU50 and CMR38-125-77 planted in June 2015 (PD-Jun), November 2015 (PD-Nov) and December 2015 (PD-Dec). Means which are significantly different (*p* < 0.05) among seasons are denoted with capital letters. Means which are significantly different (*p* < 0.05) among genotypes are denoted with different lower case letters.

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Plant growth** | **Genotype** | **PD-Jun** | | | **PD-Nov** | | | **PD-Dec** | | | *F*-test | Critical-*P* |
|  |  | min | max | mean | value2 | max | mean | min | max | mean | value2 | Value2 |
| Rate of increase  in height (cm d-1) | RY9 | 1.22 | 1.50 | 1.35 A | 0.60 | 0.90 | 0.72 B | 0.63 | 1.03 | 0.79 a B | 40.319 | <0.001 |
| RY11 | 1.12 | 1.28 | 1.19 A | 0.57 | 0.82 | 0.71 B | 0.54 | 0.69 | 0.60 b C | 121.546 | <0.001 |
| KU50 | 0.86 | 1.51 | 1.20 A | 0.57 | 1.00 | 0.77 B | 0.65 | 0.81 | 0.73 ab B | 13.434 | <0.001 |
| CMR38-125-77 | 1.22 | 1.55 | 1.39 A | 0.68 | 0.90 | 0.80 B | 0.74 | 0.94 | 0.83 a B | 64.603 | <0.001 |
|  | *F*-testvalue1 |  |  | 2.35 |  |  | 1.08 |  |  | 5.59 |  |  |
|  | Critical-*P* value1 |  |  | 0.10 |  |  | 0.38 |  |  | 0.01 |  |  |
|  | mean |  |  | 1.28 A |  |  | 0.75 B |  |  | 0.72 B | 119.570 | <0.001 |
| Rate of leaf production (cm d-1) | RY9 | 0.58 | 1.04 | 0.77 a | 0.33 | 0.83 | 0.66 | 0.48 | 0.69 | 0.60 b | 1.748 | 0.208 |
| RY11 | 0.56 | 1.06 | 0.79 a AB | 0.60 | 1.07 | 0.80 A | 0.52 | 0.70 | 0.57 b B | 4.195 | 0.036 |
| KU50 | 0.39 | 0.60 | 0.48 b B | 0.42 | 0.57 | 0.51 B | 0.53 | 0.71 | 0.61 b A | 6.427 | 0.010 |
| CMR38-125-77 | 0.68 | 0.96 | 0.85 a | 0.39 | 1.01 | 0.69 | 0.60 | 0.88 | 0.75 a | 1.422 | 0.272 |
|  | *F*-testvalue1 |  |  | 8.02 |  |  | 2.20 |  |  | 6.028 |  |  |
|  | Critical-*P* value1 |  |  | 0.00 |  |  | 0.12 |  |  | 0.004 |  |  |
|  | mean |  |  | 0.73 |  |  | 0.67 |  |  | 0.64 | 1.680 | 0.194 |
| LAI  (m2 m-2) | RY9 | 1.74 | 4.51 | 3.07 | 1.16 | 3.01 | 1.99 | 1.65 | 3.28 | 2.44 b | 3.485 | 0.057 |
| RY11 | 2.67 | 4.56 | 3.51 A | 2.18 | 3.12 | 2.49 B | 2.22 | 3.11 | 2.51 b B | 7.342 | 0.006 |
| KU50 | 2.29 | 4.49 | 3.16 | 1.24 | 4.18 | 2.53 | 1.77 | 2.27 | 1.99 c | 2.630 | 0.105 |
| CMR38-125-77 | 2.06 | 4.69 | 3.56 A | 1.72 | 2.91 | 2.26 B | 2.57 | 4.50 | 3.49 a A | 4.481 | 0.030 |
|  | *F*-testvalue1 |  |  | 0.55 |  |  | 0.61 |  |  | 9.28 |  |  |
|  | Critical-*P* value1 |  |  | 0.66 |  |  | 0.62 |  |  | <0.001 |  |  |
|  | mean |  |  | 3.32A |  |  | 2.32B |  |  | 2.61B | 10.645 | <0.001 |

1*F* and *P* value for testing each trait among genotypes within season (the same column).

2*F* and *P* value for testing each trait among seasons of each genotype (the same row).