

Supplementary Table 6. Summary of genetic variation of eight microsatellite loci at 15 locations for *Sitophilus zeamais*. N= Number of individuals; NA = Number of Alleles; AR = Allelic Richness; Ho = Observed Heterozygosity; He = expected heterozygosity; F = Endogamic coefficient.

| Name of locality (N) | | 1E1 | 1A1 | 1D10 | 1G7 | 3A11 | 3H6 | 3G1 | 3G7 | Multilocus |
|----------------------|----|---------|---------|---------|---------|--------|---------|---------|--------|------------|
| California, USA (24) | NA | 3.000 | 5.000 | 4.000 | 3.000 | 3.000 | 3.000 | 5.000 | 2.000 | 3.50 |
| | AR | 1.412 | 2.675 | 2.376 | 2.306 | 1.592 | 2.280 | 2.466 | 1.904 | 2.13 |
| | HO | 0.208 | 0.591 | 0.696 | 0.870 | 0.238 | 0.105 | 0.917 | 0.182 | 0.48 |
| | HE | 0.196 | 0.716 | 0.658 | 0.642 | 0.292 | 0.624 | 0.650 | 0.519 | 0.54 |
| | F | -0.112 | 0.0592 | -0.0319 | -0.2208 | 0.0643 | 0.3651 | -0.4977 | 0.2772 | 0.11 |
| Mexico, MEX (24) | NA | 3.000 | 5.000 | 4.000 | 3.000 | 4.000 | 2.000 | 0.000 | 2.000 | 3.29 |
| | AR | 2.421 | 2.088 | 2.438 | 2.440 | 2.536 | 1.842 | 0.000 | 1.698 | 2.06 |
| | HO | 0.696 | 0.118 | 0.857 | 0.895 | 0.238 | 0.211 | 0.000 | 0.200 | 0.46 |
| | HE | 0.671 | 0.494 | 0.669 | 0.679 | 0.692 | 0.478 | 0.000 | 0.385 | 0.58 |
| | F | -0.0371 | 0.304 | -0.184 | -0.209 | 0.301 | 0.239 | - | 0.194 | 0.21 |
| Panama, PAN (24) | NA | 3.000 | 6.000 | 4.000 | 3.000 | 5.000 | 4.000 | 3.000 | 2.000 | 3.75 |
| | AR | 1.724 | 2.269 | 2.429 | 2.397 | 2.733 | 2.276 | 1.932 | 1.505 | 2.16 |
| | HO | 0.391 | 0.182 | 0.375 | 0.792 | 0.350 | 0.250 | 0.435 | 0.000 | 0.35 |
| | HE | 0.382 | 0.570 | 0.668 | 0.662 | 0.742 | 0.612 | 0.455 | 0.264 | 0.54 |
| | F | -0.0333 | 0.306 | 0.2097 | -0.1116 | 0.2413 | 0.256 | 0.0136 | 0.3038 | 0.37 |
| Colombia, COL (24) | NA | 3.000 | 4.000 | 6.000 | 2.000 | 2.000 | 3.000 | 4.000 | 2.000 | 3.25 |
| | AR | 1.923 | 2.398 | 2.164 | 1.366 | 1.676 | 1.952 | 1.824 | 2.000 | 1.91 |
| | HO | 0.458 | 0.348 | 0.542 | 0.208 | 0.000 | 0.136 | 0.417 | 0.500 | 0.33 |
| | HE | 0.504 | 0.630 | 0.532 | 0.191 | 0.371 | 0.521 | 0.424 | 0.500 | 0.46 |
| | FO | 0.0327 | 0.188 | 0.003 | -0.110 | 0.360 | 0.319 | 0.010 | - | 0.31 |
| Boa Vista, BR1 (12) | NA | 4.000 | 3.000 | 3.000 | 3.000 | 4.000 | 2.000 | 3.000 | 2.000 | 3.00 |
| | AR | 2.425 | 2.286 | 2.420 | 2.477 | 2.493 | 1.907 | 2.316 | 1.913 | 2.28 |
| | HO | 0.444 | 0.750 | 0.800 | 0.875 | 0.182 | 0.333 | 0.750 | 0.200 | 0.54 |
| | HE | 0.660 | 0.607 | 0.674 | 0.692 | 0.662 | 0.522 | 0.627 | 0.526 | 0.62 |
| | F | 0.1474 | -0.4269 | -0.13 | -0.1805 | 0.3166 | 0.1547 | -0.1877 | 0.2649 | 0.14 |
| Rio Branco, BR2 (10) | NA | 1.000 | 3.000 | 4.000 | 3.000 | 4.000 | 3.000 | 4.000 | 3.000 | 3.13 |
| | AR | 1.000 | 2.333 | 2.591 | 2.316 | 2.240 | 1.984 | 2.409 | 2.296 | 2.15 |
| | HO | 0.000 | 0.667 | 0.571 | 0.750 | 0.333 | 0.111 | 0.625 | 0.000 | 0.38 |
| | HE | 0.000 | 0.600 | 0.703 | 0.625 | 0.561 | 0.503 | 0.642 | 0.633 | 0.53 |
| | F | - | - | 0.061 | -0.149 | 0.147 | 0.337 | -0.054 | 0.433 | 0.31 |
| Colonia, BR3 (24) | NA | 3.000 | 5.000 | 5.000 | 3.000 | 4.000 | 4.000 | 3.000 | 2.000 | 3.62 |
| | AR | 1.809 | 2.385 | 2.714 | 2.229 | 2.647 | 2.037 | 1.939 | 1.870 | 2.20 |
| | HO | 0.583 | 0.273 | 0.769 | 0.792 | 0.478 | 0.583 | 0.625 | 0.250 | 0.54 |
| | HE | 0.434 | 0.638 | 0.729 | 0.606 | 0.720 | 0.506 | 0.494 | 0.496 | 0.58 |
| | F | -0.3441 | 0.2723 | -0.0612 | -0.1857 | 0.1607 | -0.1403 | -0.193 | 0.2171 | 0.06 |
| | NA | 4.000 | 8.000 | 4.000 | 3.000 | 5.000 | 4.000 | 3.000 | 3.000 | 4.25 |

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|------------------------------|----|---------|---------|---------|---------|--------|--------|---------|--------|------|
| Palmas, BR4(24) | AR | 2.112 | 2.786 | 2.353 | 2.112 | 2.348 | 2.249 | 2.135 | 1.986 | 2.26 |
| | H0 | 0.739 | 0.421 | 0.636 | 0.409 | 0.250 | 0.429 | 0.696 | 0.278 | 0.48 |
| | HE | 0.573 | 0.744 | 0.619 | 0.549 | 0.629 | 0.605 | 0.563 | 0.510 | 0.60 |
| | F | -0.1832 | 0.2068 | -0.0208 | 0.1245 | 0.2899 | 0.1444 | -0.1611 | 0.1886 | 0.20 |
| Planaltina, BR5 (24) | NA | 3.000 | 5.000 | 5.000 | 3.000 | 4.000 | 3.000 | 3.000 | 4.000 | 3.75 |
| | AR | 2.043 | 2.491 | 2.743 | 2.350 | 2.510 | 1.809 | 2.135 | 2.056 | 2.27 |
| | H0 | 0.455 | 0.350 | 0.435 | 0.667 | 0.050 | 0.125 | 0.391 | 0.211 | 0.34 |
| | HE | 0.554 | 0.669 | 0.743 | 0.648 | 0.683 | 0.434 | 0.563 | 0.528 | 0.60 |
| | F | 0.0787 | 0.2164 | 0.1773 | -0.0311 | 0.4185 | 0.2954 | 0.1211 | 0.2544 | 0.45 |
| Viçosa, BR6 (24) | NA | 3.000 | 5.000 | 5.000 | 2.000 | 6.000 | 6.000 | 4.000 | 3.000 | 4.25 |
| | AR | 2.424 | 2.300 | 2.520 | 1.887 | 2.844 | 2.707 | 2.050 | 2.105 | 2.35 |
| | H0 | 0.458 | 0.700 | 0.950 | 0.158 | 0.286 | 0.238 | 0.636 | 0.133 | 0.45 |
| | HE | 0.673 | 0.626 | 0.688 | 0.508 | 0.769 | 0.727 | 0.555 | 0.570 | 0.64 |
| | F | 0.1452 | -0.081 | -0.2491 | 0.2952 | 0.2914 | 0.3232 | -0.0973 | 0.3288 | 0.31 |
| Eldorado do Sul, BR7 (24) | NA | 6.000 | 5.000 | 5.000 | 3.000 | 7.000 | 7.000 | 3.000 | 3.000 | 4.88 |
| | AR | 2.166 | 2.158 | 2.710 | 2.397 | 2.994 | 2.278 | 1.961 | 1.974 | 2.33 |
| | H0 | 0.583 | 0.348 | 0.545 | 0.833 | 0.231 | 0.300 | 0.417 | 0.158 | 0.43 |
| | HE | 0.582 | 0.527 | 0.737 | 0.662 | 0.803 | 0.564 | 0.529 | 0.531 | 0.62 |
| | F | -0.0154 | 0.1684 | 0.1096 | -0.1516 | 0.3386 | 0.2134 | 0.0964 | 0.3058 | 0.31 |
| Mozambique, MOZ (24) | NA | 2.000 | 4.000 | 3.000 | 1.000 | 6.000 | 4.000 | 5.000 | 2.000 | 3.37 |
| | AR | 1.856 | 2.399 | 2.312 | 1.000 | 2.773 | 1.924 | 2.314 | 1.341 | 1.99 |
| | H0 | 0.696 | 0.211 | 0.958 | 0.000 | 0.524 | 0.235 | 0.957 | 0.095 | 0.46 |
| | HE | 0.487 | 0.659 | 0.627 | 0.000 | 0.746 | 0.442 | 0.626 | 0.177 | 0.47 |
| | F | -0.2807 | 0.311 | -0.5569 | 0 | 0.1367 | 0.204 | -0.3723 | 0.144 | 0.02 |
| China, CHI (13) | NA | 2.000 | 5.000 | 6.000 | 3.000 | 6.000 | 3.000 | 4.000 | 5.000 | 4.25 |
| | AR | 1.711 | 2.767 | 2.968 | 2.467 | 2.889 | 2.268 | 1.914 | 2.786 | 2.47 |
| | H0 | 0.333 | 0.714 | 0.700 | 0.909 | 0.556 | 0.444 | 0.417 | 0.444 | 0.56 |
| | HE | 0.391 | 0.736 | 0.795 | 0.688 | 0.771 | 0.627 | 0.431 | 0.752 | 0.65 |
| | F | 0.0524 | -0.0042 | 0.0355 | -0.2252 | 0.1326 | 0.1259 | 0.025 | 0.1898 | 0.14 |
| India, IND (24) | NA | 2.000 | 5.000 | 4.000 | 3.000 | 5.000 | 2.000 | 4.000 | 2.000 | 3.38 |
| | AR | 1.869 | 2.542 | 2.387 | 2.035 | 2.740 | 1.894 | 2.309 | 1.887 | 2.21 |
| | H0 | 0.565 | 0.250 | 0.875 | 0.636 | 0.429 | 0.389 | 0.667 | 0.176 | 0.50 |
| | HE | 0.496 | 0.673 | 0.648 | 0.530 | 0.746 | 0.513 | 0.630 | 0.508 | 0.59 |
| | F | -0.0872 | 0.2834 | -0.2244 | -0.0984 | 0.1976 | 0.1044 | -0.0427 | 0.2801 | 0.16 |
| Thailand, THA (11) | NA | 3.000 | 6.000 | 5.000 | 3.000 | 2.000 | 3.000 | 3.000 | 5.000 | 3.75 |
| | AR | 2.028 | 3.032 | 2.661 | 2.304 | 1.933 | 2.077 | 2.135 | 2.712 | 2.36 |
| | H0 | 0.545 | 0.500 | 0.364 | 0.636 | 0.000 | 0.167 | 0.364 | 0.429 | 0.38 |
| | HE | 0.541 | 0.816 | 0.727 | 0.623 | 0.533 | 0.530 | 0.550 | 0.725 | 0.63 |
| | F | -0.0171 | 0.176 | 0.232 | -0.047 | - | 0.307 | 0.132 | 0.157 | 0.41 |