"High Density SNP and DArT-based Genetic Linkage Maps of Two Closely Related Oil Palm Populations"

Journal of Applied Genetics

Siou Ting Gan, Wei Chee Wong, Choo Kien Wong, Aik Chin Soh, Andrzej Kilian, Eng-Ti Leslie Low, Festo Massawe and Sean Mayes

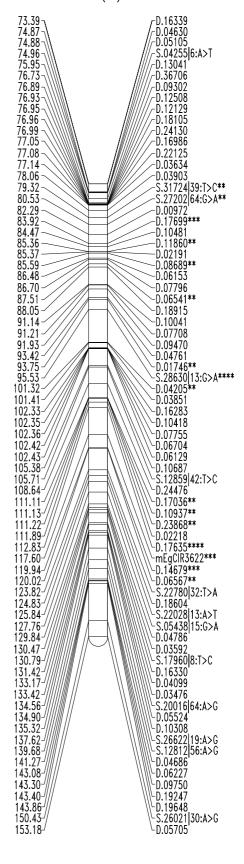
Corresponding author: Siou Ting Gan, Biotechnology Research Centre, Advanced Agriecological Research Sdn. Bhd., 43500 Semenyih, Selangor Darul Ehsan, Malaysia.

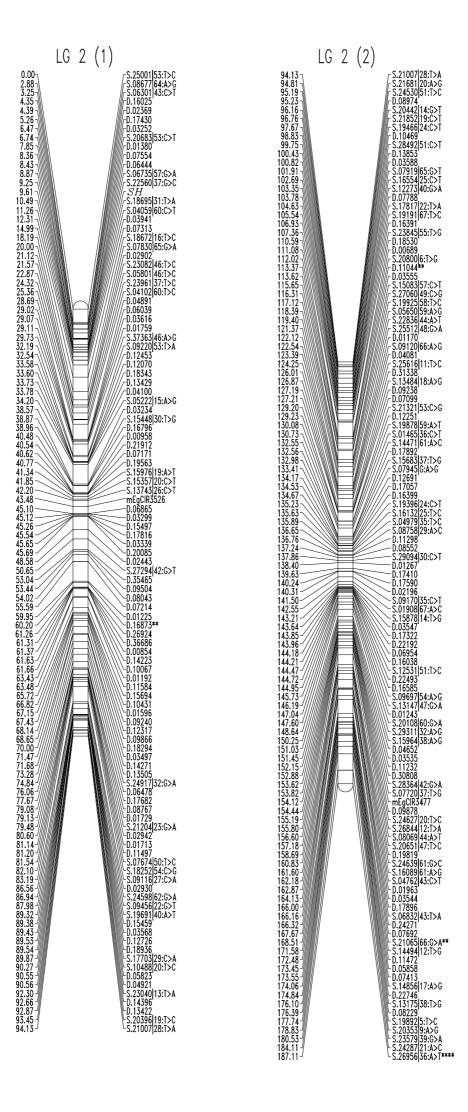
Email address: ganst@aarsb.com.my

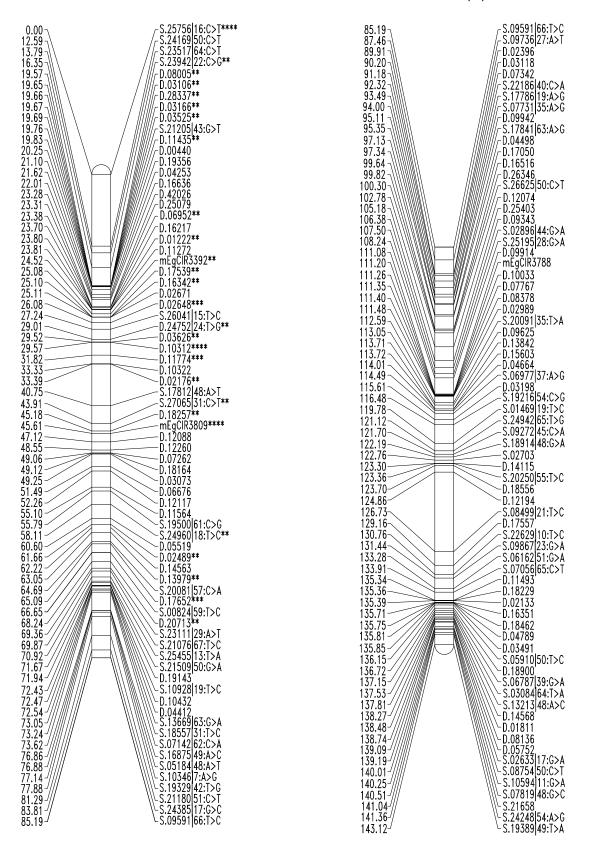
LG 1 (2)

0.00 4.52 5.25 6.46 7.31 7.44 7.88 - S.23855|66:A>T - S.11845|20:T>C\*\* 75.11645]20:170\*
7 D.16305
7 D.16305
7 D.06623
7 D.22254
7 S.34716|8:T>C
7 D.13911
7 S.14594|22:T>C
7 D.02658 8.60 -8.87 -8.95 9.10 D.04984 - D.14984 - S.13964|64:T>G - S.04994|25:A>G - S.035126|9:A>G - D.03090 - D.14284 - mEgCIR2887 - D.12567 - D.16099 9.39 9.86 11.14 11.66 11.98 12.12 12.41 12.84 14.55 18.47 D.16099 -D.16099
-S.24516|46:G>A
-S.14874|50:T>C
-S.21093|47:G>T
-S.06557|15:G>A
-S.11245|68:G>A
-D.12655
-S.27512|19:T>G
-S.19836|17:T>G
-S.29502|45:T>C
-S.17694|23:T>C
-D.08068 20.77 21.72 22.75 23.72 24.19 25.54 27.84 28.98 30.57 31.40 D.08068 31.66 32.78 33.46 - S.08057|63:A>G - S.21918|51:G>A - S.20187|28:T>G 33.77 D.08154 - D.21725 - D.05065 - D.13675 - D.05550 34.26 34.60 35.03 35.05 35.24 36.50 -D.16196 -S.20897|55:T>C -D.16519 36.80 -37.38 --5.19046|51:G>A -5.02041|60:A>G -5.13230|43:G>A -5.37738|54:G>A 40.86 47.29 48.45 - D.10864 - S.04256|43:T>A 48.48 48.69 48.94 D.01930 -D.01930 -D.14171 -D.01226 -D.13994 -S.25119|12:C>T -S.22835|24:G>A -S.17814|39:G>A -S.04089|6:A>G -S.19134|37:T>C -S.15323|31:T>C -D.16883 50.19 -50.40 -52.01 -54.30 -56.48 -58.35 -59.65 -59.92-60.34 61.18 -D.16883 -S.19013|29:T>C 64.18 64.48 / 67.62 / 68.42 / 68.44 / 70.11 / -D.07789 -D.07769 -D.14112 -D.01529 -S.01727|6:A>G -D.03070 -D.12354 -D.12720 70.94 71.47 -D.10989 -S.10848|32:A>G 72.89 D.16339

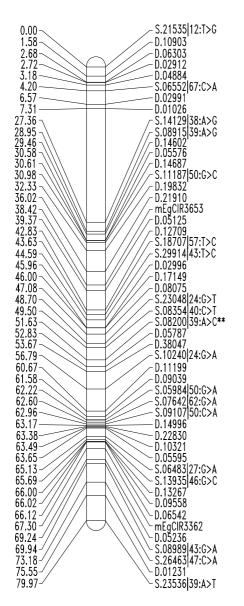
LG 1 (1)

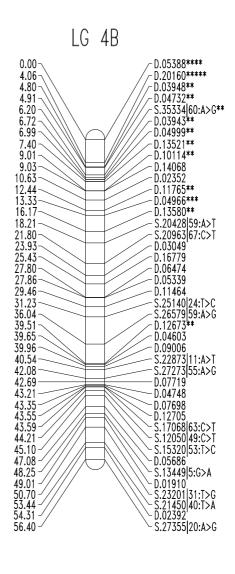


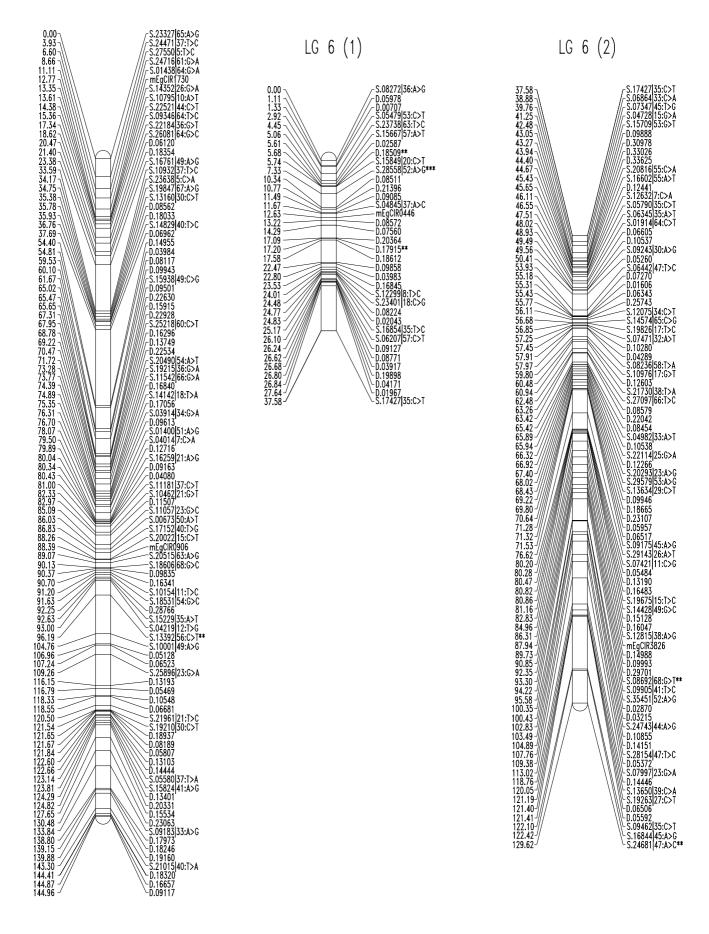


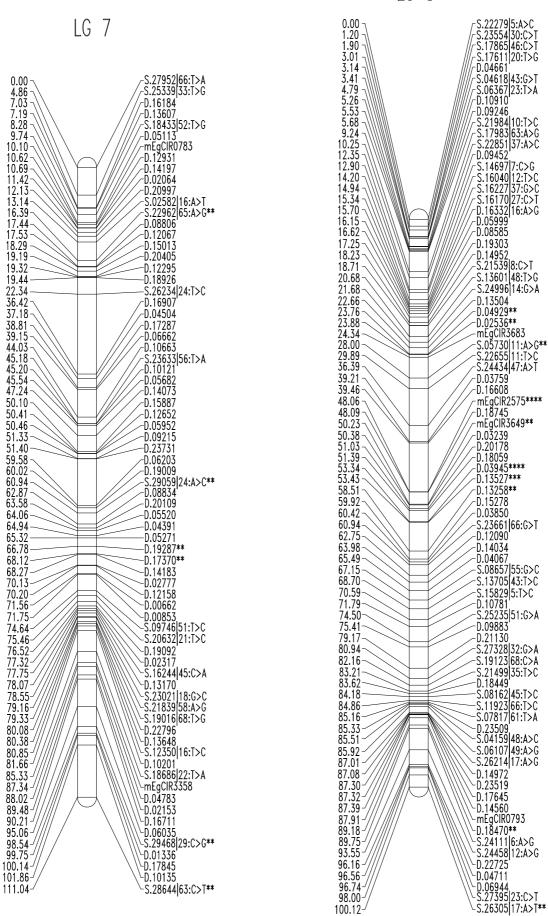


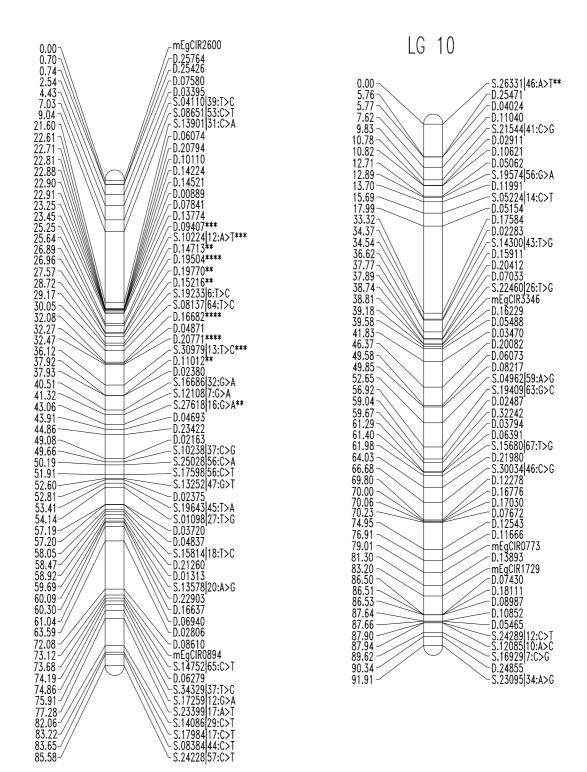
LG 4A







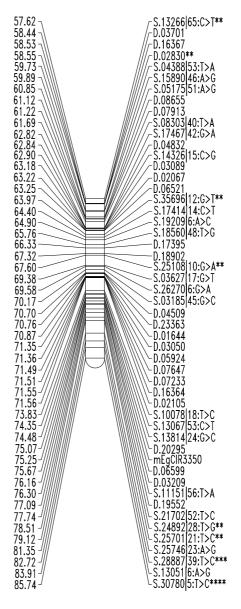


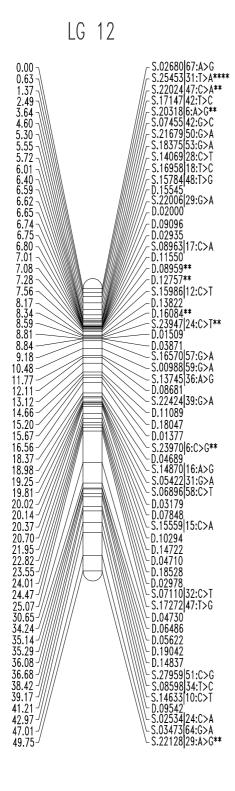


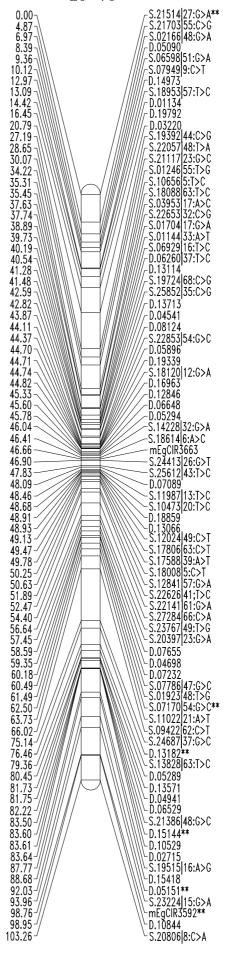
## LG 11 (1)

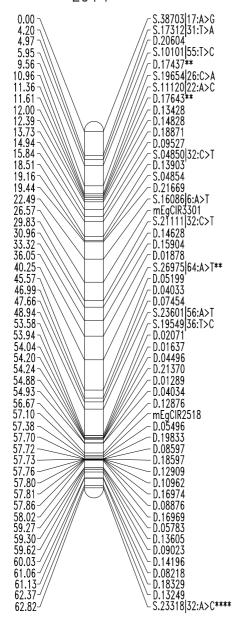
## - S.24206|47:T>C - S.04628|64:A>C - S.26058|47:A>C - D.04228 3.18 6.58 8.53 12.12 - D.03305 | D.03456 | D.01263 | S.15795|11:T>C | S.34182|5:G>A | S.24768|66:A>G | S.21382|17:T>C | MEGCIRO772 | S.22003|40:T>C | S.10975|39:T>C | D.16808 | S.2240|68:G>A | S.24404|32:T>C | S.39563|31:T>C | S.15886|6:T>C | S.15886|6:T>C | S.18987|53:G>A | S.18987|53:G>A | D.13347 12.83 √ D.03456 13.82 13.99 18.34 31.08 32.28 32.68 33.15 34.07 34.42 35.05 35.57 36.72 37.20 37.56 38.79 39.63 / D.13347 / D.13181 / D.07500 40.16 40.27 40.38 - D.11692 - D.13769 40.41 40.49 40.79 - D.13661 - D.13957 40.98 40.99 - D.08600 41.58 - D.14364 42.46 - S.07095|18:G>A 42.69 D.07501 43.54 43.60 - D.03467 - S.09875|5:G>C - S.11841|59:C>T\*\* 43.67 43.72 43.76 43.90 D.03294 D.11160 D.05536 44.24 D.11419\*\* 46.41 D.08257 D.16534\*\* 46.60 46.66 D.04237 - D.04237 - D.20464\*\*\* - S.09900|30:G>A - S.09765|11:A>G - S.24579|40:A>G\*\* - S.20574|47:C>T\*\* 47.49 48.55 48.72 49.54 50.65 -51.35 -- D.06438' - D.06438 - D.19492 - S.10427 | 43:C>G - S.17792 | 30:T>C - S.21487 | 45:A>C\*\* - S.07043 | 21:G>C - S.14147 | 10:T>C - D.0353\*\* - S.07079 | 30:C>T\*\* - S.13266 | 65:C>T\*\* 51.35 51.46 51.79 52.57 53.03 53.87 54.01 56.34

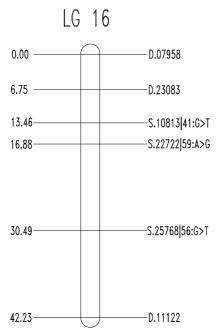
## LG 11 (2)

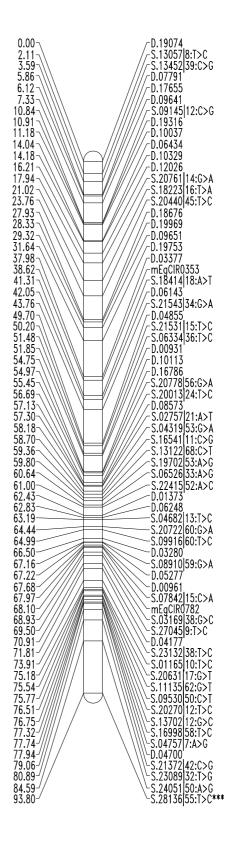












**Fig. S2** Genetic linkage maps of the AA0769 population. The map consists of 1466 markers loci (32 SSR, 807 DArT, 626 SNP and Sh locus). Marker names are shown to the right of each LG, with map distances in centiMorgans (Haldane units) to the left. D: DArT marker, S: SNP marker, mEgCIR:  $E.\ guineensis$  SSR marker. \*: Skewed markers at P=0.1, \*\*: Skewed markers at P=0.05, \*\*\*: Skewed markers at P=0.001.