

Title: Metagenomic insights of the root colonizing microbiome associated with symptomatic and non-symptomatic bananas in *Fusarium* wilt infected fields

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Supplementary Figures:

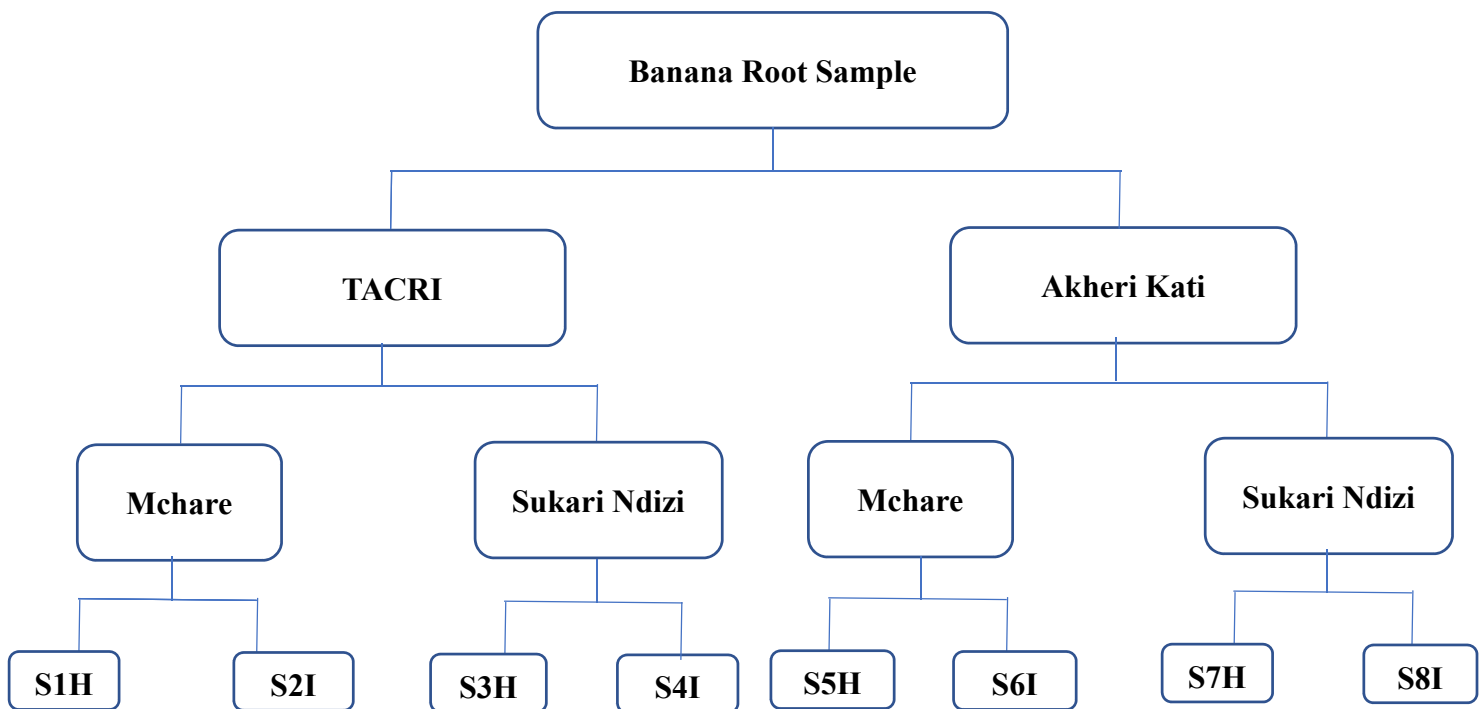


Figure S1. Layout plan for banana root sample collection. ** A total of eight banana root samples and each sample is a composite of three sub-samples.

Where: *S: Sample; 1-8: Number; H: non symptomatic; I: symptomatic

Supplementary Tables

Table S1 Summary of QIIME filtration and chimeric sequences removal

| Sample | # of Stitched Reads | # non chimeric Reads |
|---------------|----------------------------|-----------------------------|
| S1H | 349670 | 308784 |
| S2I | 381417 | 337074 |
| S3H | 278606 | 242504 |
| S4I | 307503 | 281162 |
| S5H | 544149 | 464508 |
| S6I | 457699 | 385006 |
| S7H | 222216 | 199861 |
| S8I | 467607 | 414864 |

Table S2 Summary of clustering the similar sequences into one representative taxonomic unit as Operational Taxonomic Unit (OTU)

| Sample | # OTUs found | # OTUs found (excluding singleton OTUs) |
|-----------------------|---------------------|------------------------------------------------|
| S1H | 15426 | 6571 |
| S2I | 11779 | 5561 |
| S3H | 14909 | 6782 |
| S4I | 10044 | 5311 |
| S5H | 16699 | 7450 |
| S6I | 19223 | 8747 |
| S7H | 8243 | 4867 |
| S8I | 15901 | 7811 |
| total collective OTUs | 81021 | 21897 |

Table S3 Summary of Beta diversity for each sample

Table S4 Summary of alpha diversity for each sample

| Sample | Shannon | Observed_species | Chao1 |
|---------------|----------------|-------------------------|--------------|
| S1H | 6.88506523 | 6571 | 9800.60656 |
| S2I | 6.37236815 | 5561 | 8143.76482 |
| S3H | 7.08072462 | 6782 | 10410.5758 |
| S4I | 6.96542793 | 5311 | 7038.07692 |
| S5H | 7.3710425 | 7450 | 10055.5672 |
| S6I | 7.81189461 | 8747 | 11979.4332 |
| S7H | 7.58508533 | 4867 | 7742.43584 |

Abundance jaccard

| S3H | S7H | S4I | S6I | S8I | S5H | S1H | S2I | |
|-----|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| S3H | 0 | 0.3899465 | 0.4050810 | 0.2965748 | 0.356525 | 0.2451412 | 0.3236324 | 0.2666299 |
| | | 4 | 5 | 9 | | 2 | 7 | 1 |
| S7H | 0.3899465 | 0 | 0.2235025 | 0.2151700 | 0.3210178 | 0.1934823 | 0.3128651 | 0.2499867 |
| | 4 | | 1 | 2 | 4 | 7 | 2 | 9 |
| S4I | 0.4050810 | 0.2235025 | 0 | 0.2332282 | 0.3882529 | 0.1828573 | 0.3243133 | 0.2986206 |
| | 5 | 1 | | 1 | 9 | 9 | 2 | 9 |
| S6I | 0.2965748 | 0.2151700 | 0.2332282 | 0 | 0.3021491 | 0.2275766 | 0.3295316 | 0.2734919 |
| | 9 | 2 | 1 | | 8 | 8 | 9 | 4 |
| S8I | 0.356525 | 0.3210178 | 0.3882529 | 0.3021491 | 0 | 0.3511129 | 0.4117613 | 0.3985832 |
| | | 4 | 9 | 8 | | 8 | 7 | 1 |
| S5H | 0.2451412 | 0.1934823 | 0.1828573 | 0.2275766 | 0.3511129 | 0 | 0.3139441 | 0.2266390 |
| | 2 | 7 | 9 | 8 | 8 | | 7 | 4 |
| S1H | 0.3236324 | 0.3128651 | 0.3243133 | 0.3295316 | 0.4117613 | 0.3139441 | 0 | 0.1894764 |
| | 7 | 2 | 2 | 9 | 7 | 7 | | |
| S2I | 0.2666299 | 0.2499867 | 0.2986206 | 0.2734919 | 0.3985832 | 0.2266390 | 0.1894764 | 0 |
| | 1 | 9 | 9 | 4 | 1 | 4 | | |

Bray curtis

| | | | | | | | | |
|-----|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| S3H | 0 | 0.7275507 | 0.7740353 | 0.7648292 | 0.7233634 | 0.6980277 | 0.7959868 | 0.7647736 |
| | | 8 | 6 | 5 | 7 | 6 | 5 | 8 |
| S7H | 0.7275507 | 0 | 0.6057610 | 0.5740228 | 0.6723998 | 0.6560917 | 0.6910969 | 0.7551956 |
| | 8 | | 6 | 1 | 5 | 2 | 3 | 9 |
| S4I | 0.7740353 | 0.6057610 | 0 | 0.6810984 | 0.7991569 | 0.6390789 | 0.8234821 | 0.8552268 |
| | 6 | 6 | | 6 | 3 | 5 | 5 | 1 |
| S6I | 0.7648292 | 0.5740228 | 0.6810984 | 0 | 0.6615375 | 0.7241387 | 0.7079462 | 0.7266701 |
| | 5 | 1 | 6 | | | 4 | 1 | 8 |
| S8I | 0.7233634 | 0.6723998 | 0.7991569 | 0.6615375 | 0 | 0.7704452 | 0.743378 | 0.7622889 |
| | 7 | 5 | 3 | | | 7 | | 1 |
| S5H | 0.6980277 | 0.6560917 | 0.6390789 | 0.7241387 | 0.7704452 | 0 | 0.7226455 | 0.7668710 |
| | 6 | 2 | 5 | 4 | 7 | | 2 | 1 |
| S1H | 0.7959868 | 0.6910969 | 0.8234821 | 0.7079462 | 0.743378 | 0.7226455 | 0 | 0.5659510 |
| | 5 | 3 | 5 | 1 | | 2 | | 3 |
| S2I | 0.7647736 | 0.7551956 | 0.8552268 | 0.7266701 | 0.7622889 | 0.7668710 | 0.5659510 | 0 |
| | 8 | 9 | 1 | 8 | 1 | 1 | 3 | |

Euclidean

| | | | | | | | | |
|-----|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|
| S3H | 0 | 48245.834 | 67070.131 | 71066.448 | 66133.179 | 63376.784 | 65445.597 | 74114.055 |
| | | 2 | 7 | 7 | 3 | 4 | 3 | |
| S7H | 48245.834 | 0 | 46510.129 | 52123.551 | 57440.680 | 52529.264 | 45892.810 | 60569.375 |
| | 2 | | 9 | 3 | 2 | 1 | 3 | 8 |
| S4I | 67070.131 | 46510.129 | 0 | 70761.298 | 81654.391 | 62362.377 | 69127.987 | 84169.146 |
| | 7 | 9 | | | 2 | 7 | 1 | 9 |
| S6I | 71066.448 | 52123.551 | 70761.298 | 0 | 63363.711 | 75884.031 | 63475.534 | 73382.712 |
| | 7 | 3 | | | 7 | 1 | 3 | 2 |
| S8I | 66133.179 | 57440.680 | 81654.391 | 63363.711 | 0 | 79203.728 | 64039.874 | 74062.368 |
| | 3 | 2 | 2 | 7 | | | 8 | 5 |
| S5H | 63376.784 | 52529.264 | 62362.377 | 75884.031 | 79203.728 | 0 | 62680.007 | 74408.782 |
| | 4 | 1 | 7 | 1 | | | 1 | 9 |
| S1H | 65445.597 | 45892.810 | 69127.987 | 63475.534 | 64039.874 | 62680.007 | 0 | 47359.283 |
| | 3 | 3 | 1 | 3 | 8 | 1 | | 6 |
| S2I | 74114.055 | 60569.375 | 84169.146 | 73382.712 | 74062.368 | 74408.782 | 47359.283 | 0 |
| | | 8 | 9 | 2 | 5 | 9 | 6 | |
| | S8I | 7.61245204 | 7811 | | 10539.395 | | | |

