



PrimeWay Soil DNA Extraction Kit
(KIT-9060-10/50/250)

PrimeWay Soil DNA Extraction Kit is a reliable kit that is used to isolate genomic DNA from various type of soil sample, manure & water sample.

Soil

- General soil
- Low microbial diversity soil

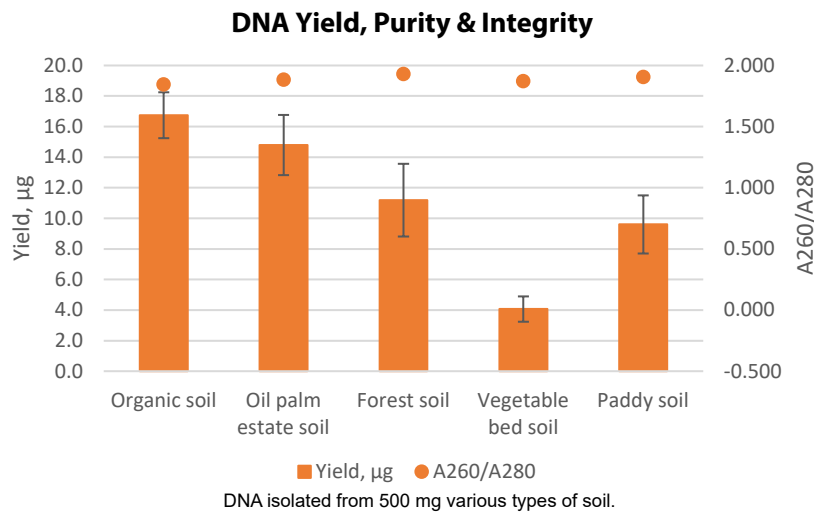
Manure

Water Sample

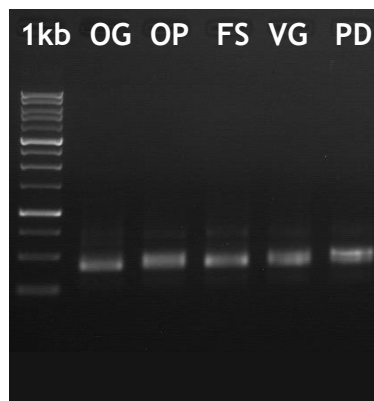
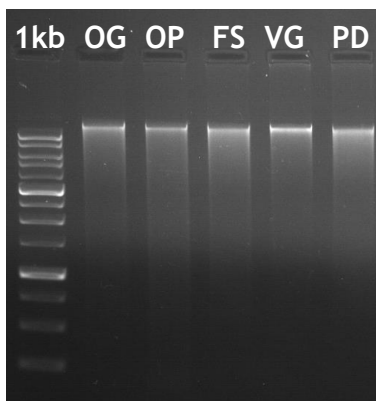
DNA Clean-up

Both mechanical and chemical lysis methods are used for maximum extraction efficiency and DNA yield. This kit can efficiently remove abundance of humic substances and pigments which affect downstream processes such as PCR. Besides soil sample, it is also suitable for other sample types including animal manure, worm compost and water. The purified DNA is suitable for PCR, southern blot, enzyme digestion, amplicon sequencing, etc.

Soil Performance Review



PCR Amplification



OG: Organic soil
OP: Oil Palm estate soil
FS: Forest soil
VG: Vegetable bed soil
PD: Paddy soil

50 ng of DNA are analysed with 1% agarose gel.

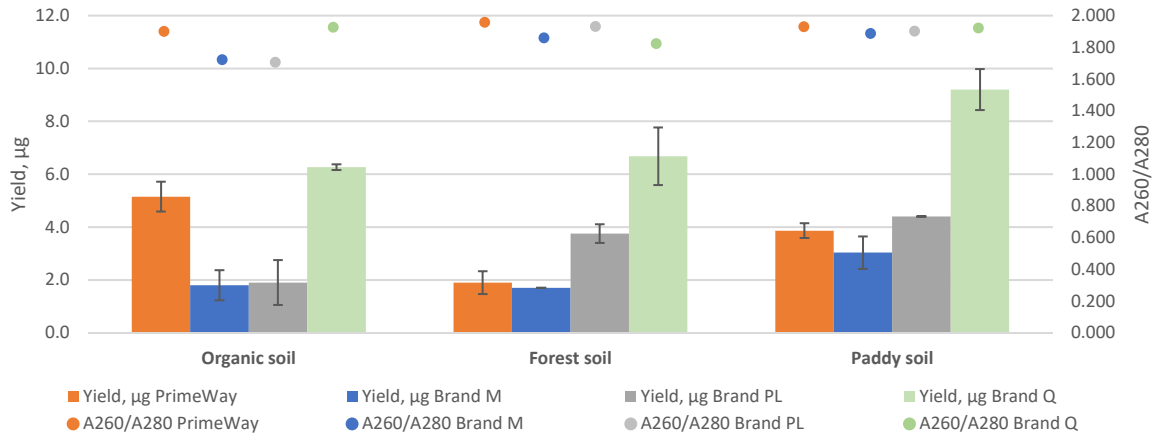
Successful PCR amplification (ITS2) indicates the extracted DNA is free from PCR inhibitors. 1 µL PCR product is analysed with 1% agarose gel.



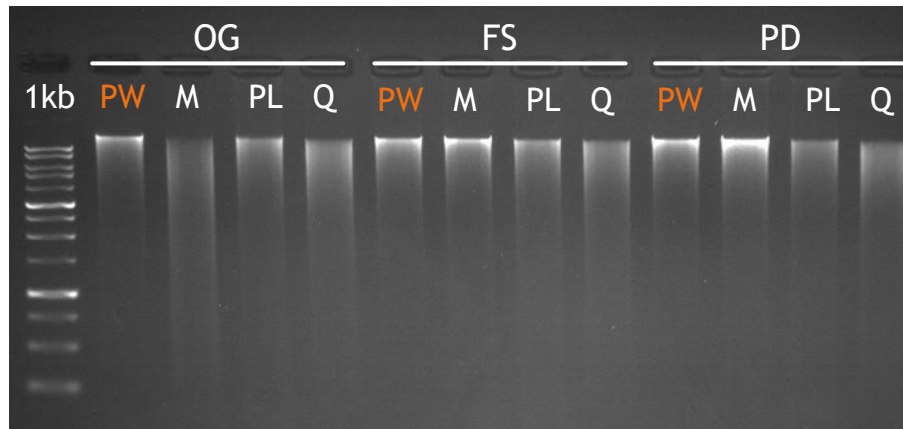
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Comparison Data

DNA Yield, Purity & Integrity for General Soil



DNA isolated from 200 mg soils.

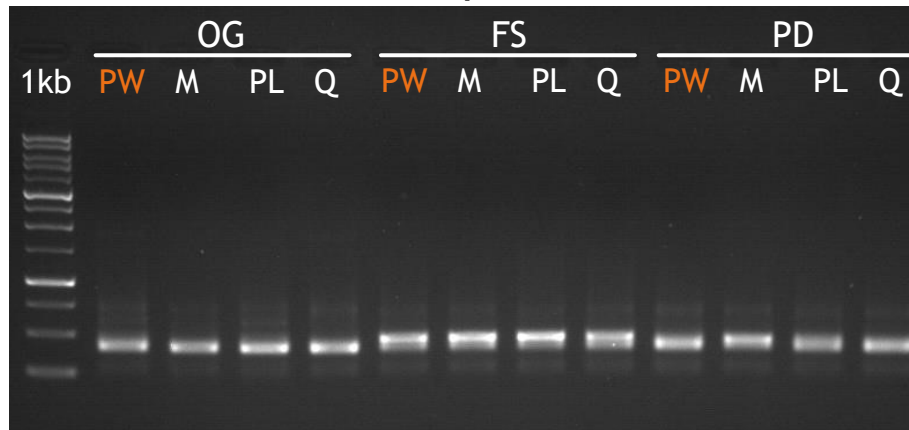


Soil Type
OG: Organic soil
FS: Forest soil
PD: Paddy soil

Brand
PW: PrimeWay
M : Brand M
PL : Brand PL
Q : Brand Q

50 ng of DNA are analysed with 1% agarose gel.

PCR Amplification

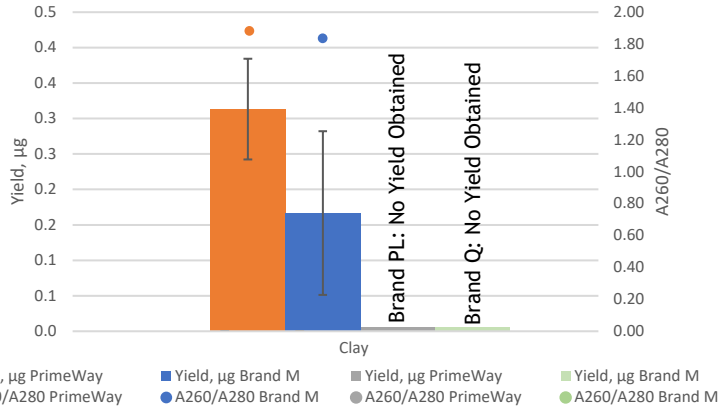


Successful PCR amplification (ITS2) indicates the extracted DNA is free from PCR inhibitors. 1 µL PCR product is analysed with 1% agarose gel.



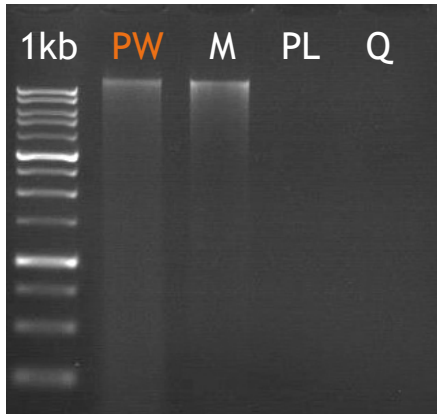
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DNA Yield, Purity & Integrity for Low Soil Microbial Diversity

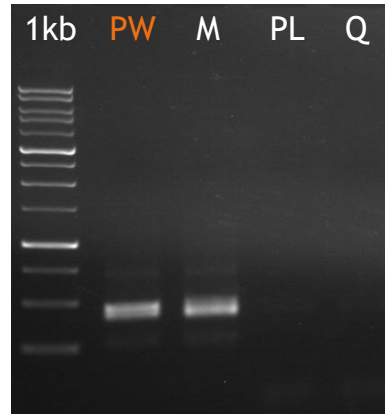


DNA isolated from 200 mg clay. PrimeWay kit able to extract DNA from soil with low microbiome diversity.

PCR Amplification



50 ng of DNA are analysed with 1% agarose gel.

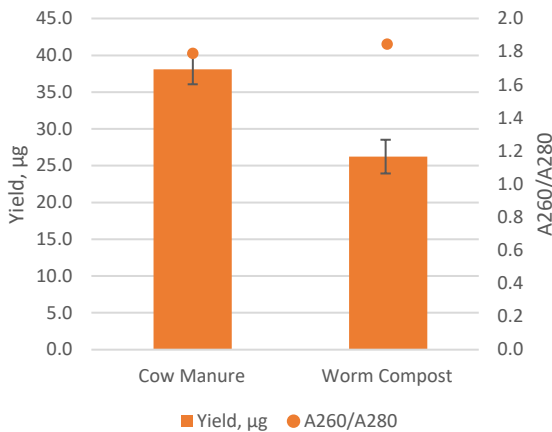


Successful PCR amplification (ITS2) indicates the extracted DNA is free from PCR inhibitors. 1 µL PCR product is analysed with 1% agarose gel.

Brand
PW: PrimeWay
M : Brand M
PL : Brand PL
Q : Brand Q

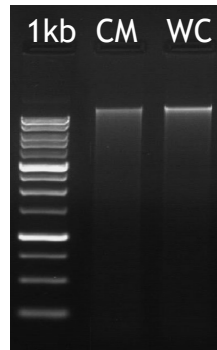
Manure Performance Review

DNA Yield, Purity & Integrity

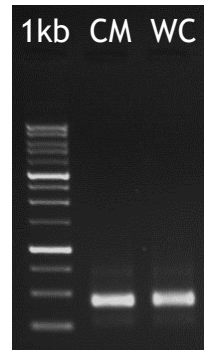


DNA isolated from 500 mg of cow manure & worm compost.

PCR Amplification



50 ng of DNA are analysed with 1% agarose gel.



Successful PCR amplification (ITS2) indicates the extracted DNA is free from PCR inhibitors. 1 µL PCR product is analysed with 1% agarose gel.

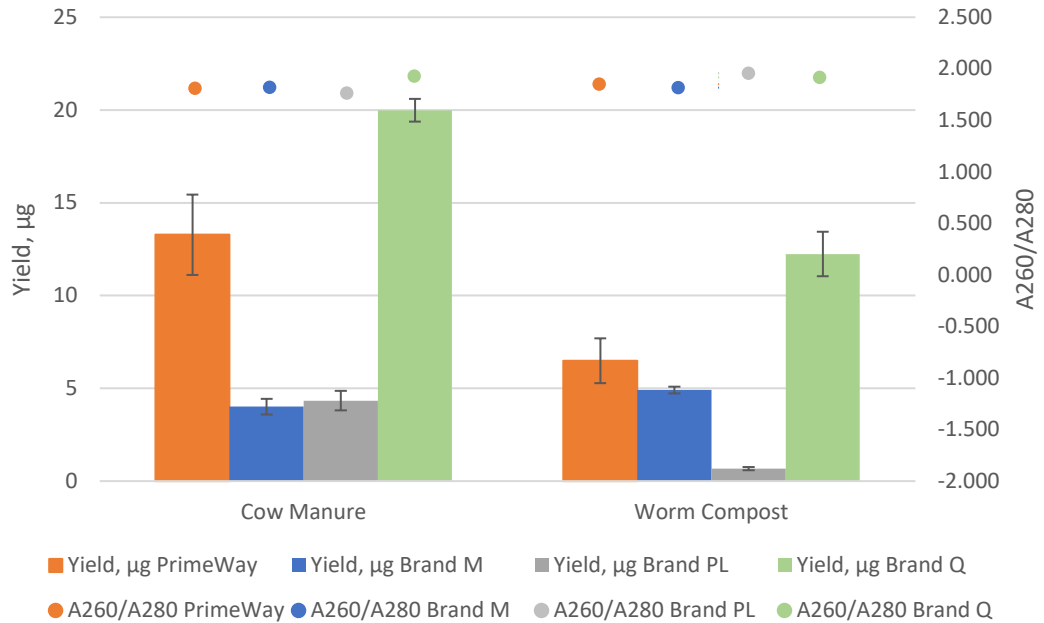
CM: Cow Manure
WC: Worm Compost



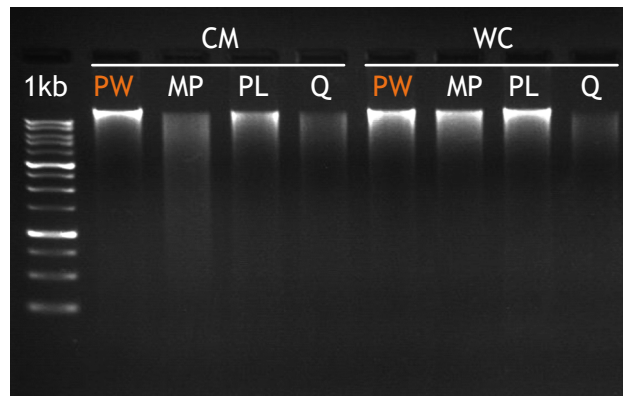
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Comparison Data

DNA Yield, Purity & Integrity for Manure

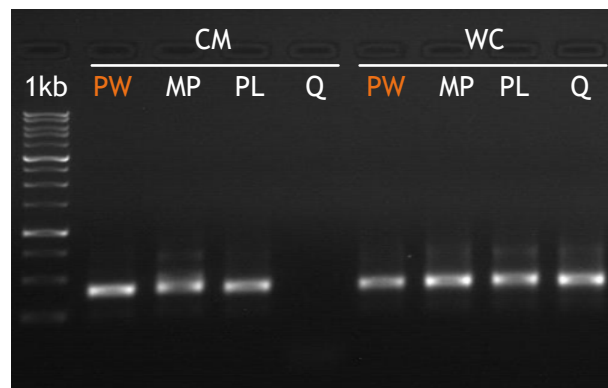


DNA isolated from 100 mg of cow manure & worm compost.



50 ng of DNA extracted are analysed with 1% agarose gel.

PCR Amplification



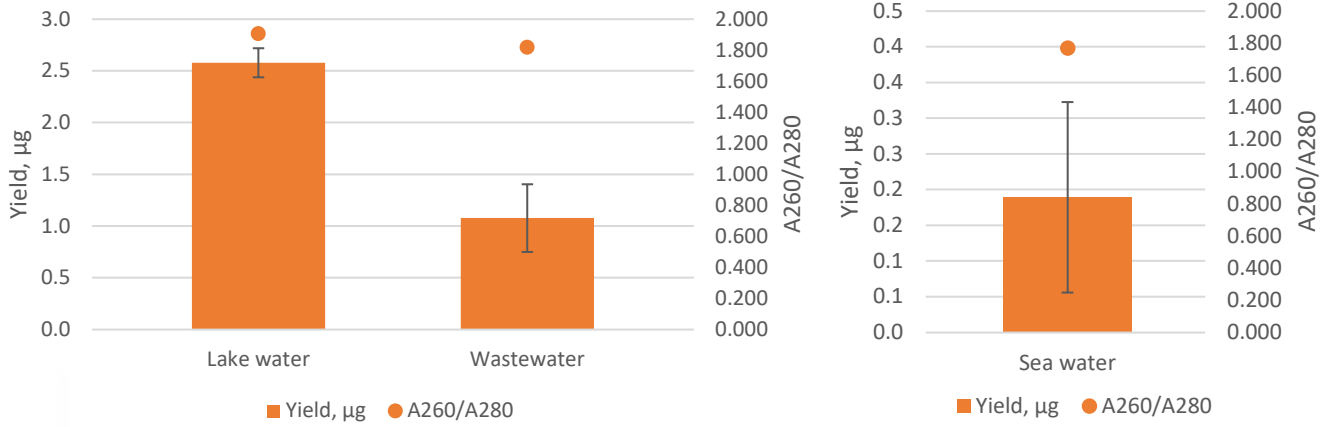
Successful PCR amplification (ITS2) indicates the extracted DNA is free from PCR inhibitors. 1 µL PCR product is analysed with 1% agarose gel.



Scan QR Code for More Details

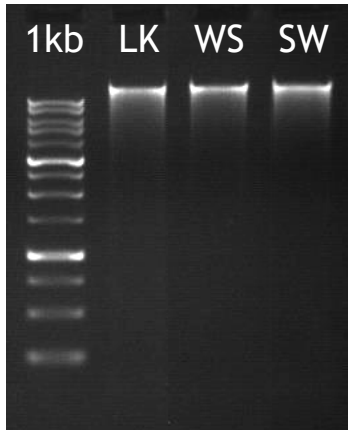
Water Performance Review

DNA Yield, Purity & Integrity

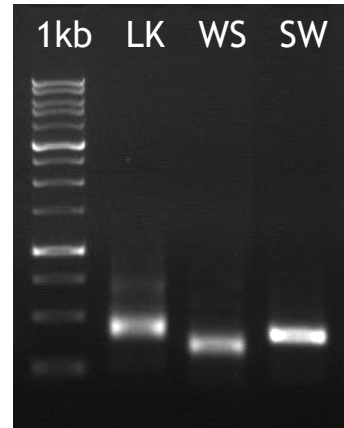


DNA isolated from various type of water sample with 0.2 µm membrane filter.

PCR Amplification



50 ng of DNA from water samples are analysed with 1% agarose gel.



Successful PCR amplification (ITS2) indicates extracted DNA is free from PCR inhibitors. 1 µL PCR product is analysed with 1% agarose gel.

Water Sample Type

LK: Lake water
WS: Waste water
SW: Sea water

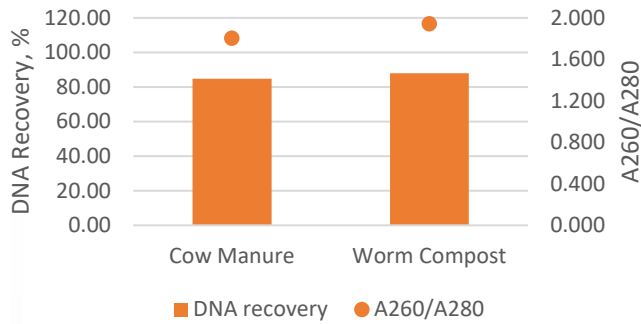


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DNA Clean-up

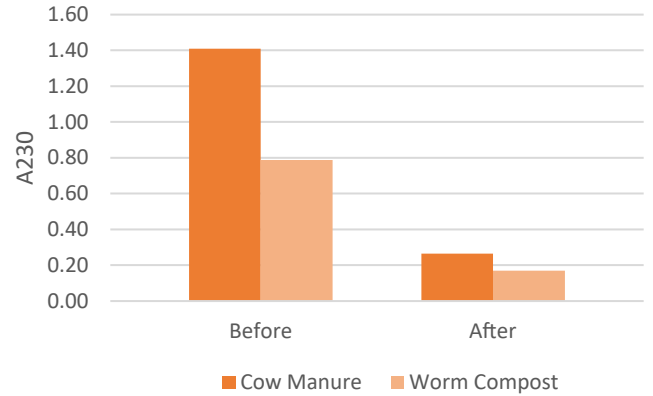
Performance Review

DNA Recovery & Purity after DNA Clean-up



DNA clean-up of 30 μ L DNA containing pigments.

Absorbance 320, Humic Acid Detection

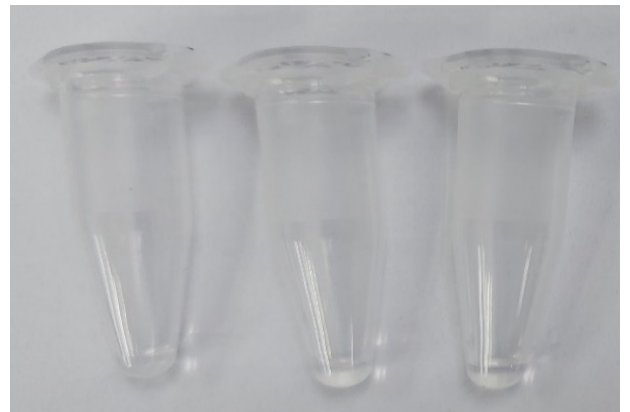


Before



Light yellowish pigment is observed in the DNA

After



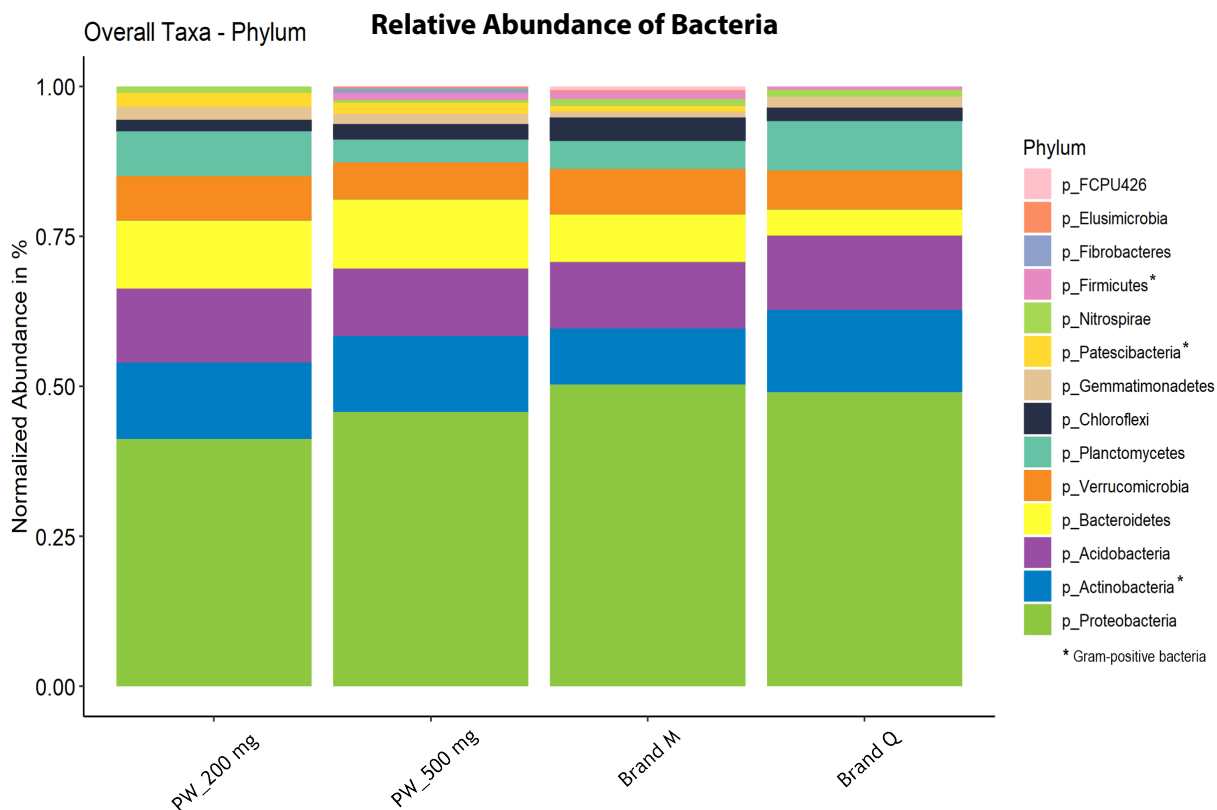
The pigments in the DNA are removed



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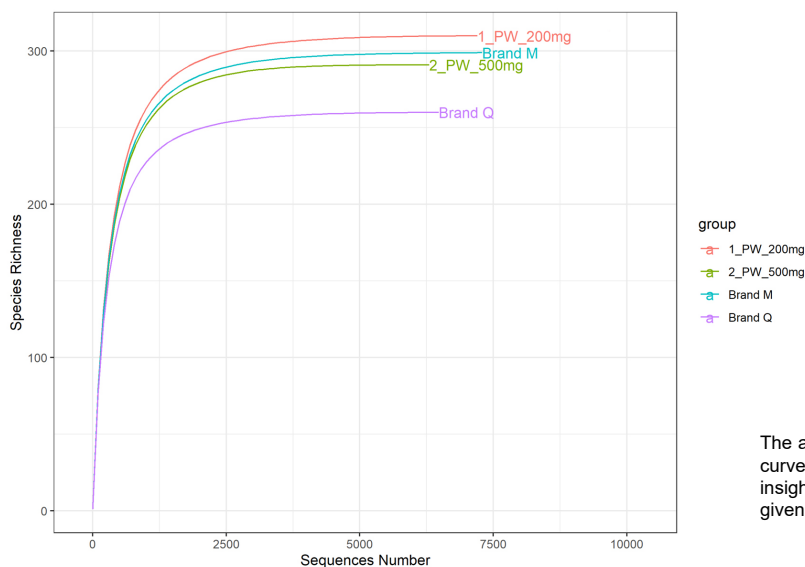
NGS Result

Comparison of 16S Microbial Profiles



Comparison of 16S microbial profiles from soil, extracted using PrimeWay and other brands of soil DNA extraction kits. V4 region was amplified from the extracted DNA and sequenced on the Illumina Miseq Platform. Qiime2 pipeline was used to analyse the data and the results are shown in the figure above. The relative abundance of bacteria is classified in phylum-level.

Rarefaction Curves



The alpha diversity is presented using rarefaction curves. Rarefaction curves is used to provides insight on the number of species detected at the given sequencing depth.

