



Jenna Lang, PhD  
Microbiome Scientist

**TechCrunch**

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FASTCOMPANY

A close-up photograph of a green garden trowel filled with dark, rich soil. The soil is being poured onto a light-colored surface, creating a small mound. The background is slightly blurred, showing more soil and some green foliage.

**Comprehensive microbial evaluation**  
for soil health & disease management

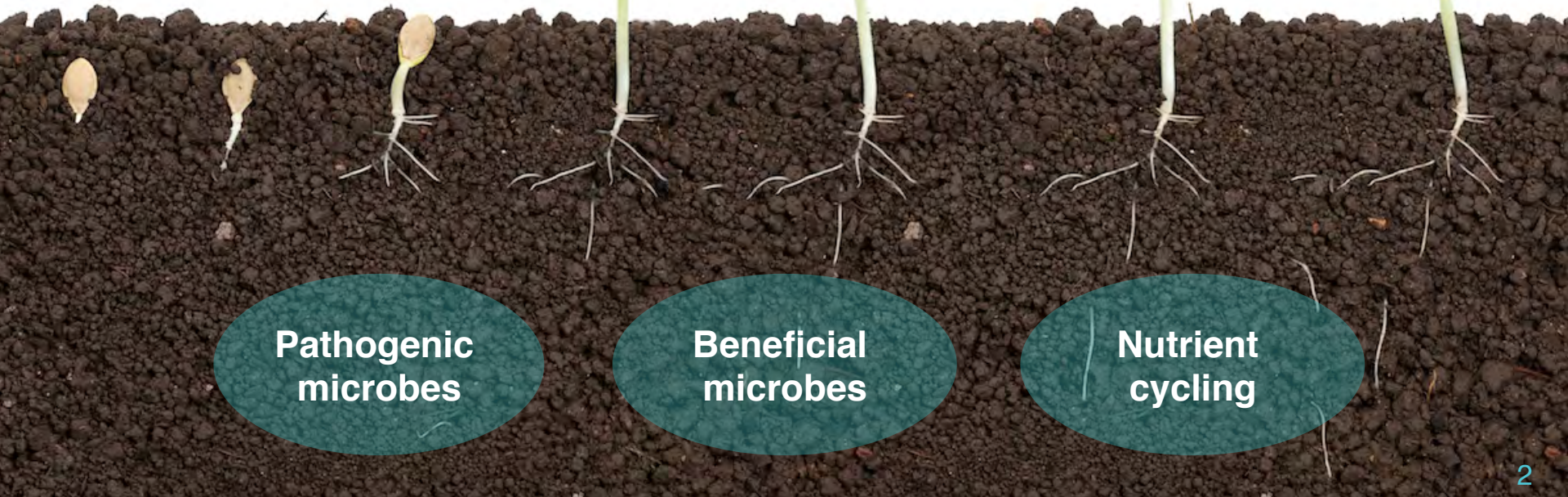
# Factors influencing soil health



Soil  
Treatments  
and  
Management  
practices



Physical  
and  
Chemical  
properties



Pathogenic  
microbes

Beneficial  
microbes

Nutrient  
cycling

# First scalable microbiome test for agriculture



Pathogenic  
microbes

Nutrient  
availability

Beneficial  
microbes

## Capture biological state of the soil



**Disease Panel**

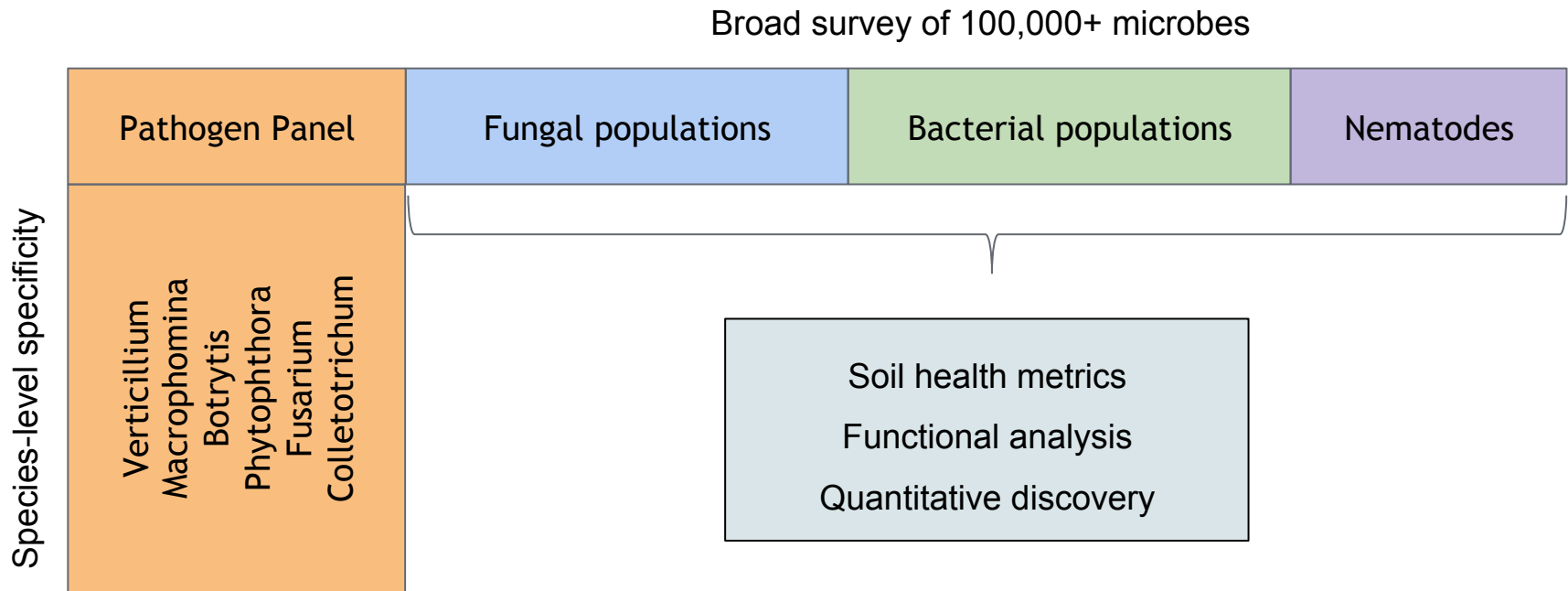
**Soil Health**

**Nutrient Cycling**

**Genomics and analytics deliver a snapshot of soil disease and health**

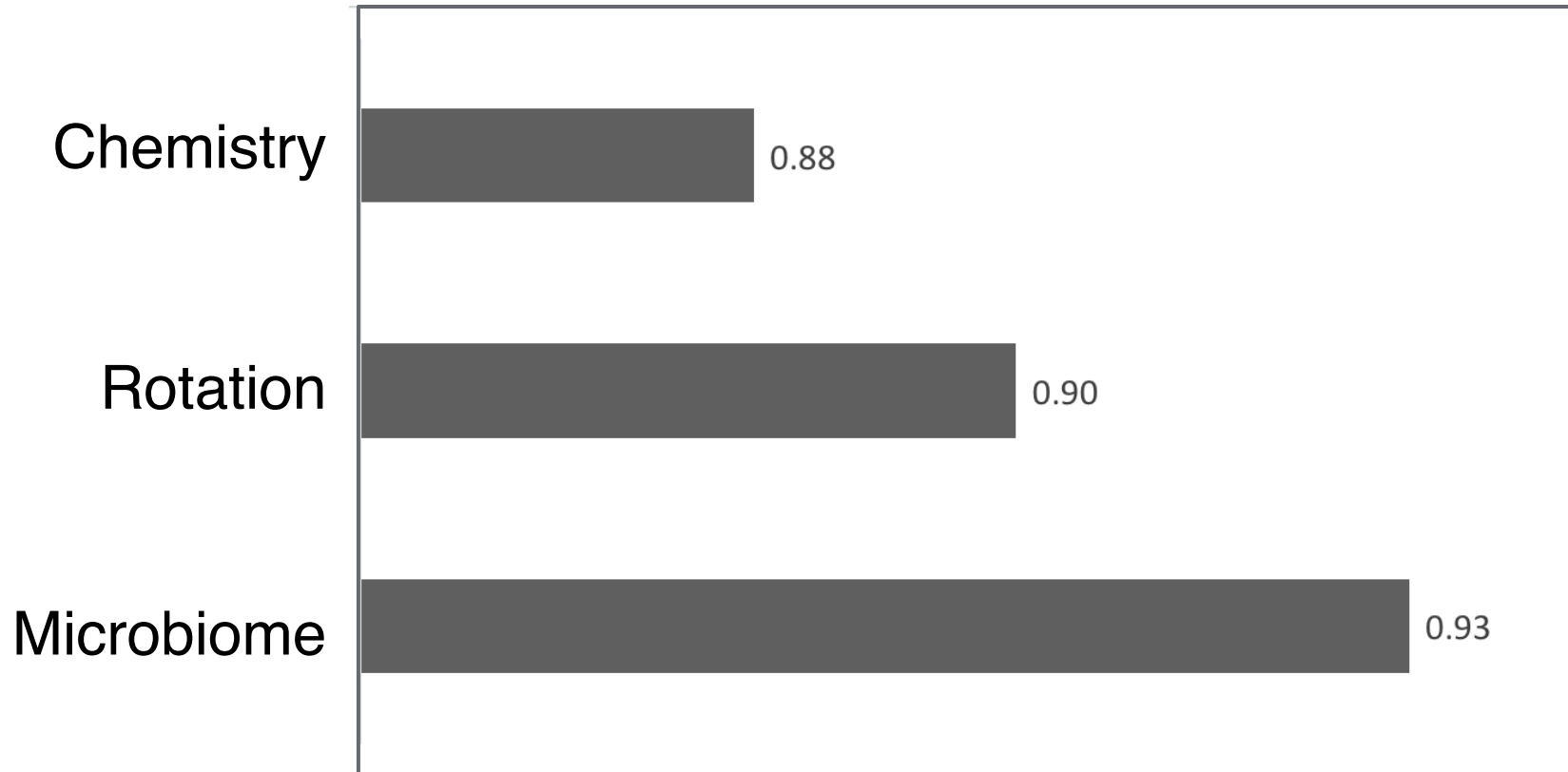
# Proprietary Microbiome Technology

## Simultaneous Broad and Deep Microbial Profiling



# Case study: Microbes are predictors of yield

## Yield Prediction Accuracy



Annu. Rev. Phytopathol. 2004. 42:243–70  
doi: 10.1146/annurev.phyto.42.012604.135455  
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First published online as a Review in Advance on April 2, 2004

## MICROBIAL DIVERSITY IN SOIL: Selection of Microbial Populations by Plant and Soil Type and Implications for Disease Suppressiveness

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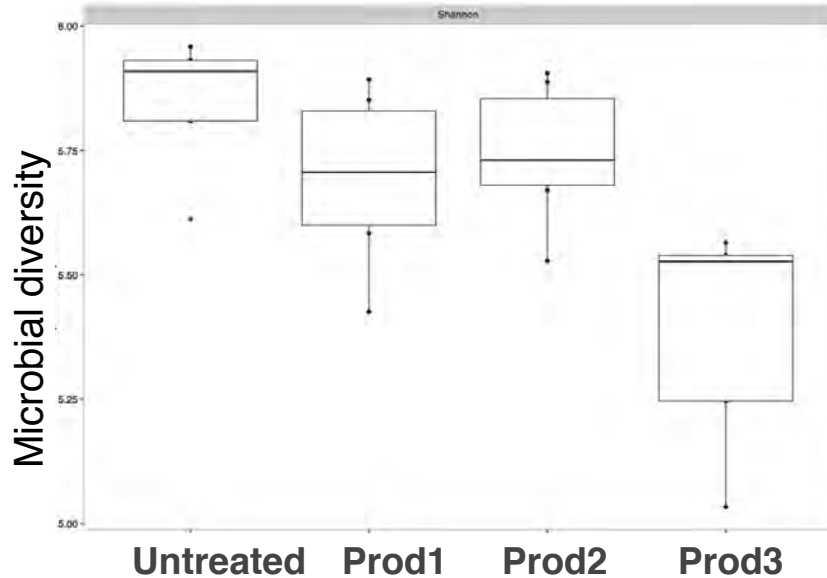
P. Garbeva,<sup>1</sup> J.A. van Veen,<sup>1</sup> and J.D. van Elsas<sup>2</sup>

### **Healthy soils have higher diversity**

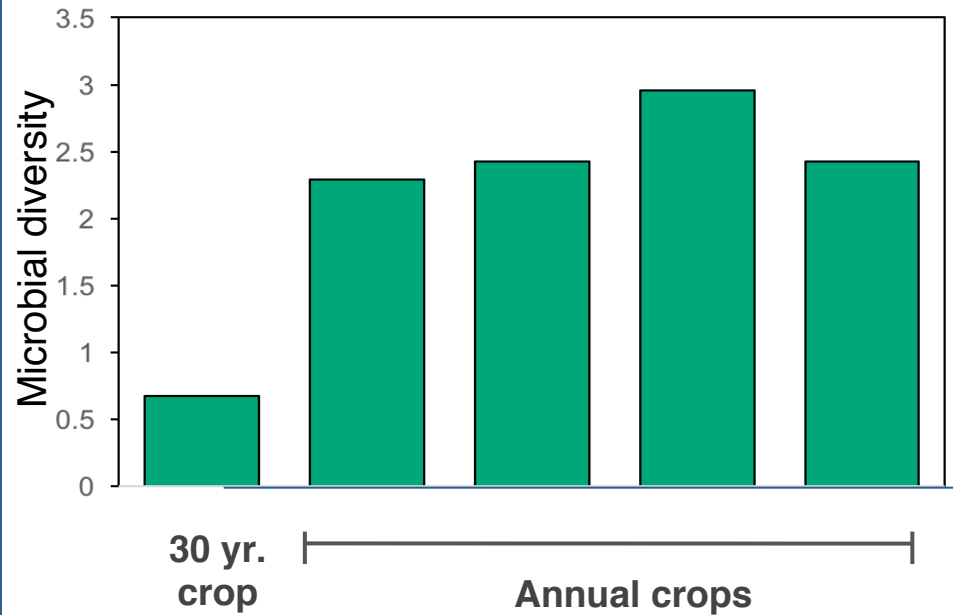
- More resilient to disease pressures
- Correlation with higher yield
- More sustainable

# Case study: Microbial diversity

## Effects of products and fumigants on soil microbial ecosystem



## Continuous cropping reduces soil diversity



Products and practices have dramatic effects on microbial diversity

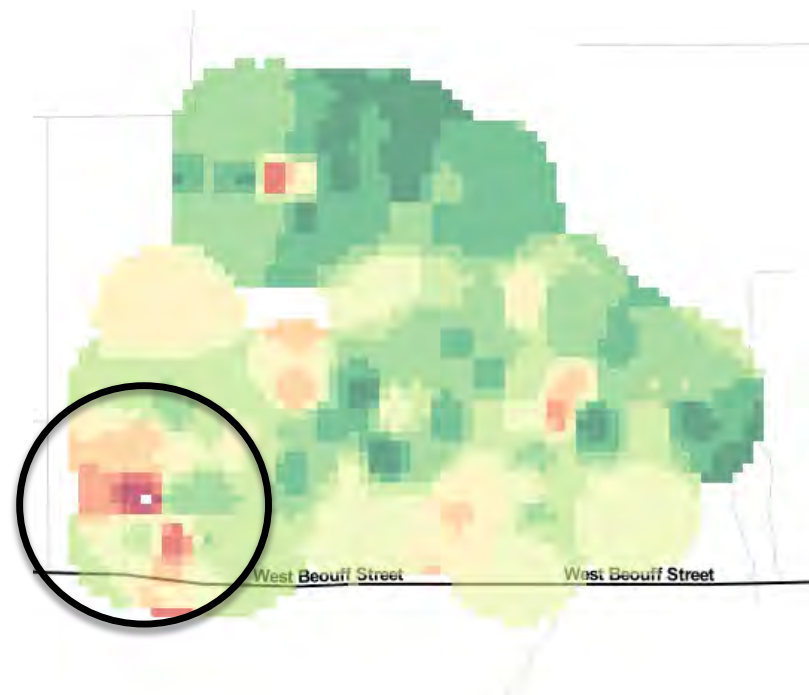


# Soil Health: Mapping soil health metrics

## Microbial diversity

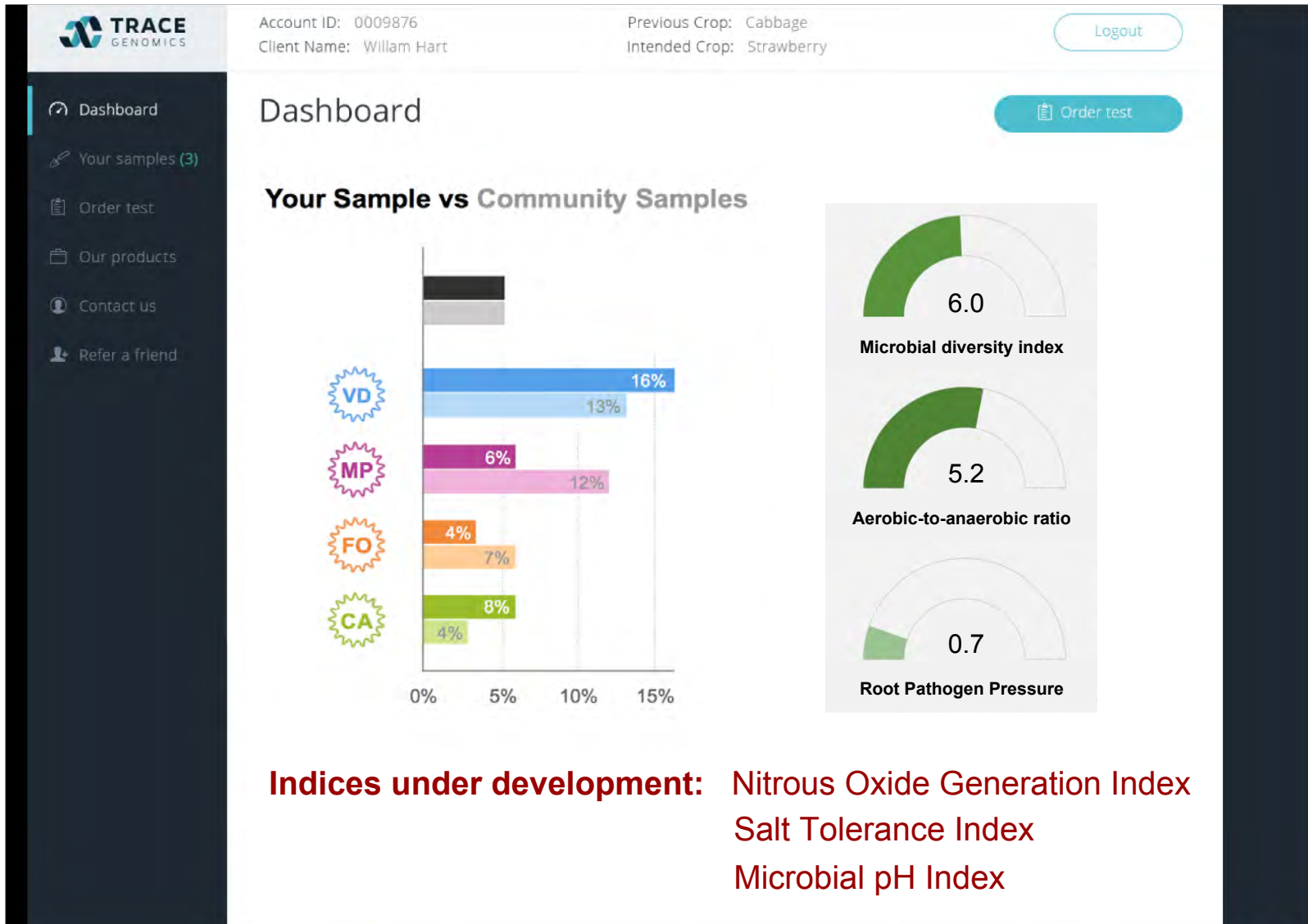


## Aerobic/anaerobic ratio



Low soil health indices revealed an area impacted by flooding

# Soil health and disease





## Use Cases

### Yield Differentials

Low vs. high yield

### Operataional Impacts

Cover cropping, tillage, plastic mulch, rotation

### Product Treatment

Soil and seed treatment effects

### Field Trials

Soil biology shifts during field trials



**Thank you!**  
**[info@tracegenomics.com](mailto:info@tracegenomics.com)**