Figure Legends

Plant data.

Biostimulation of three different potato genotypes treated with *P. oligandrum*. (**A-J**) Boxplots of biostimulation of potato plants treated with *P. oligandrum* (blue boxplots) or untreated controls (red boxplots), in the three different genotypes Kuras, Desirée, King Edward, in greenhouse bioassays. (**A-C**) Plant height of the longest shoot in cm. (**D-F**) Fresh weight of the shoots in grams. (**G-J**) Fresh weight of roots in logarithmic transformed weight in grams. NS p >0.05, \* p <0.05,\*\*\* p <0.001 The total number of plants treated, or controls were n=6 per experiment per genotype. The experiment was repeated 3 times independently. (**K**) Boxplot of the cv. Kuras potato plant height of the longest shoot at the end of the cropping season in a small-scale field trial. The red boxplot represents untreated control plants, and the blue boxplot *P. oligandrum* treated plants. Significant difference (p < 0.05) is indicated with an asterisk. The total number of plants used per treatment in the field trial was n=12.

Figure Beta diversity.

Panel (**A-D**) shows the beta-diversity of the temporal change in the community structure in the rhizosphere microbiome of cv. Kuras potato plants in a small-scale field trial. (**A**) and (**B**) bacteria and (**C**) and (**D**) fungal samples shown as PCoA plots. The sampling was done at the 3 timepoints i.e. in July (08-07-2019) where no treatments had been conducted, and in August (06-08-2019) and September (03-09-2019), where *P. oligandrum* treatment had been conducted in the field trial. (**A**) and (**C**) represents untreated control plants and (**B**) and (**D**) *P. oligandrum* treated plants. Asterisks indicate significant difference between timepoints, p <0.05. (**E-H**) shows beta-diversity shown as PCoA plots between rhizosphere samples from either control plants or plants treated with *P. oligandrum* in the rhizosphere microbiome of cv. Kuras potato plants in a small-scale field trial. (**E**) Bacteria samples in August. (**F**) Bacteria samples in September. (**G**) Fungal samples in August. (**H**) Fungal samples in September.

Figure Relative Abundance

The top 10 most abundant phyla in the rhizosphere microbiome of cv. Kuras potato plants in a small-scale field trial. (**A**) and (**C**) the relative abundance of bacterial and fungal phyla in the untreated control plants. (**B**) and (**D**) the relative abundance of bacterial and fungal phyla in *P. oligandrum* treated plants. The three sampling timepoints i.e. in July (08-07-19) where no treatments had been conducted, August (06-08-19) and September (03-09-19), where treatment had been conducted, are presented on the x-axis. (**E-H**) Comparison of the relative abundance of top 10 bacterial and fungal phyla between untreated control plants and *P. oligandrum* treated plants in the rhizosphere microbiome of cv. Kuras potato plants in a small-scale field trial. (**E**) and (**G**) at the August timepoint and (**F**) and (**H**) in September.