# Adding a microbial dimension to the management of planted forests

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The activity of soil microbial communities underpins the productivity of the New Zealand planted forest estate, but the response of this community to site management has received little attention. Given that the New Zealand forestry sector has recently launched a campaign to double forest productivity, the frequency and extent of management interventions is likely to intensify significantly. To ensure the stability of key soil microbial functions, an improved understanding of how the activity of soil microbial community will respond to these interventions is needed. To address this knowledge gap molecular and enzymatic techniques have been employed to assess various microbial community properties related to plant growth promoting activity and a number of other factors previously correlated with forest productivity. This work includes a detailed study conducted at two long term trial sites, providing new insights into the resilience of microbial function. The findings of this research have provided a new capability to integrate the responses of the soil microbial community into assessments of management impacts, and provide new opportunities to more effectively consider the soil microbial community as a site resource.