

Running small scale on-farm trials



ORC Producer Conference

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Research question

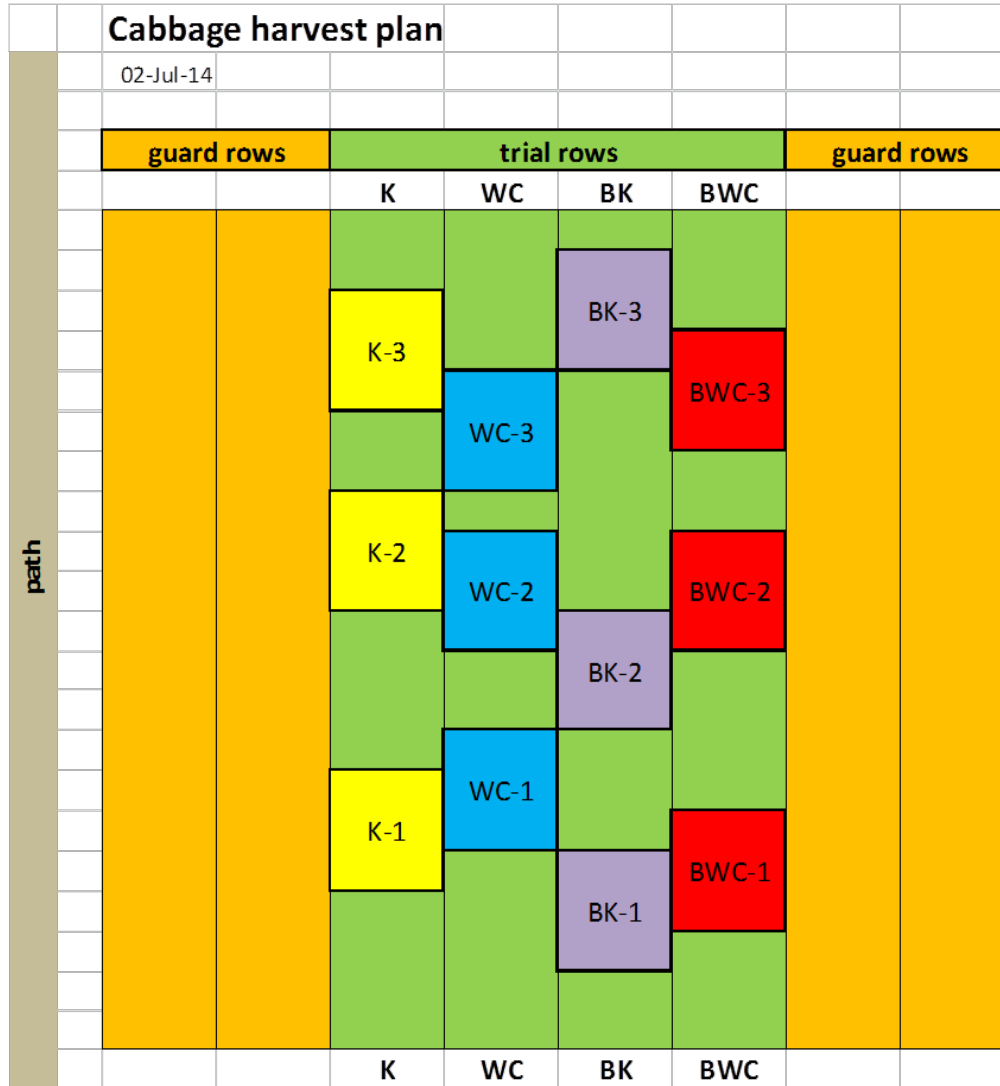
**How does woodchip
compost perform as a peat
free growing medium
compared to standard
materials?**



Trial design in the greenhouse

		block 1		block 2		block 3								
		cabbage B-WC	leeks WC	cabbage Klaas	leeks B-Klaas	cabbage B-WC	leeks Klaas	leeks WC	cabbage WC					
		leeks B-WC	leeks Klaas	cabbage WC	cabbage B-Klaas	cabbage Klaas	cabbage B-Klaas	leeks B-WC	leeks Klaas					
		leeks B-Klaas	cabbage B-Klaas	leeks B-WC	cabbage WC	leeks WC	cabbage B-WC	cabbage Klaas	leeks B-Klaas					
		3.7m												
		1.2m												
		1 tray of transplants			module trays are 37x23cm									
		Guard row (any of the 2 crops)			containing 40 modules/plants per tray									
		Woodchip compost			50 trays are needed in total (24 for trial)									
		Biochar + Woodchip compost			trial 24 are used for monitoring and analysis									
		Biochar + Klaasman			6 trays per substrate									
		Klaasman			arranged in 3 pseudo replicates (3 blocks)									
	c	cabbage			2 different crops are compared									
	l	leeks			1 tray in each block and substrate for one crop									
					3 trays per crop and substrate in total									

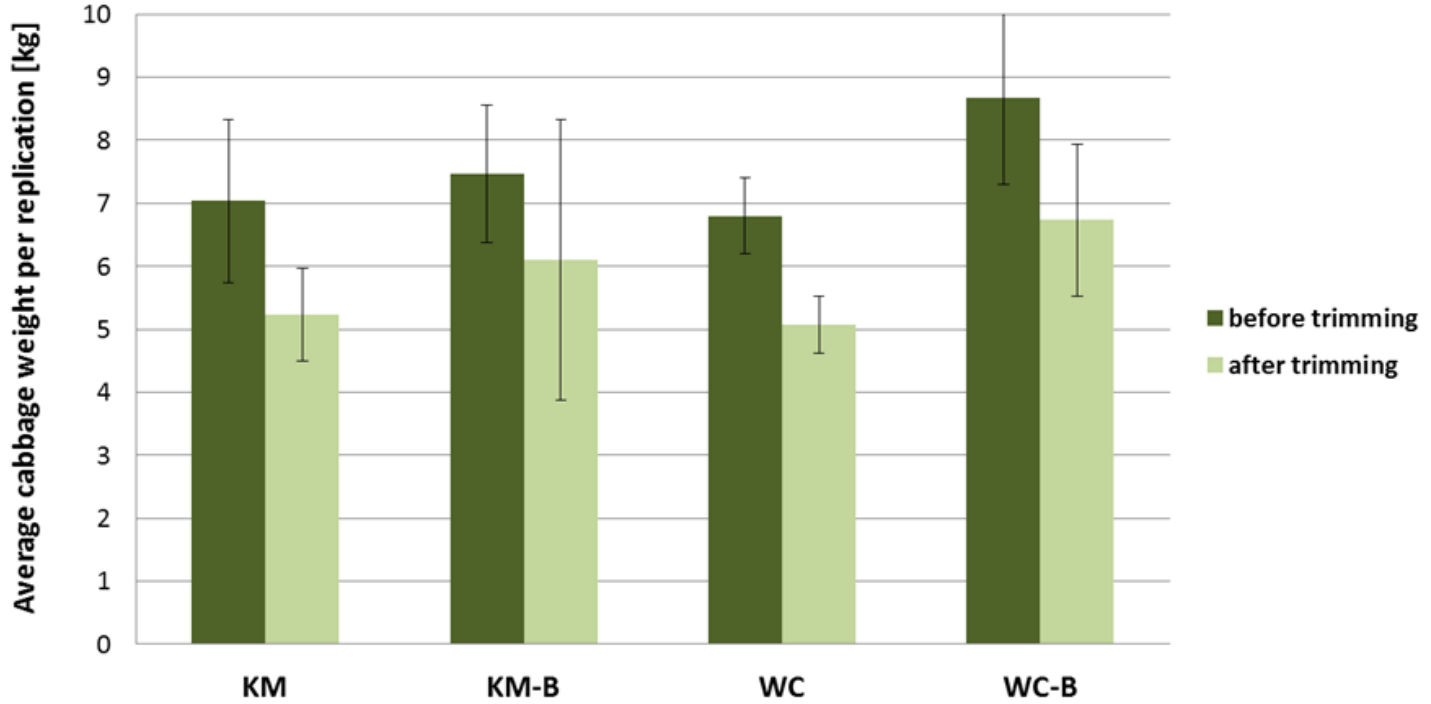
Trial design in the field



Average weight of harvested cabbages per replication 2. July 2014

Before trimming (dark green) and after trimming (light green)

KM - Klasmann, KM-B - Klasmann and Biochar, WC - Woodchip, WC-B - Woodchip and Biochar

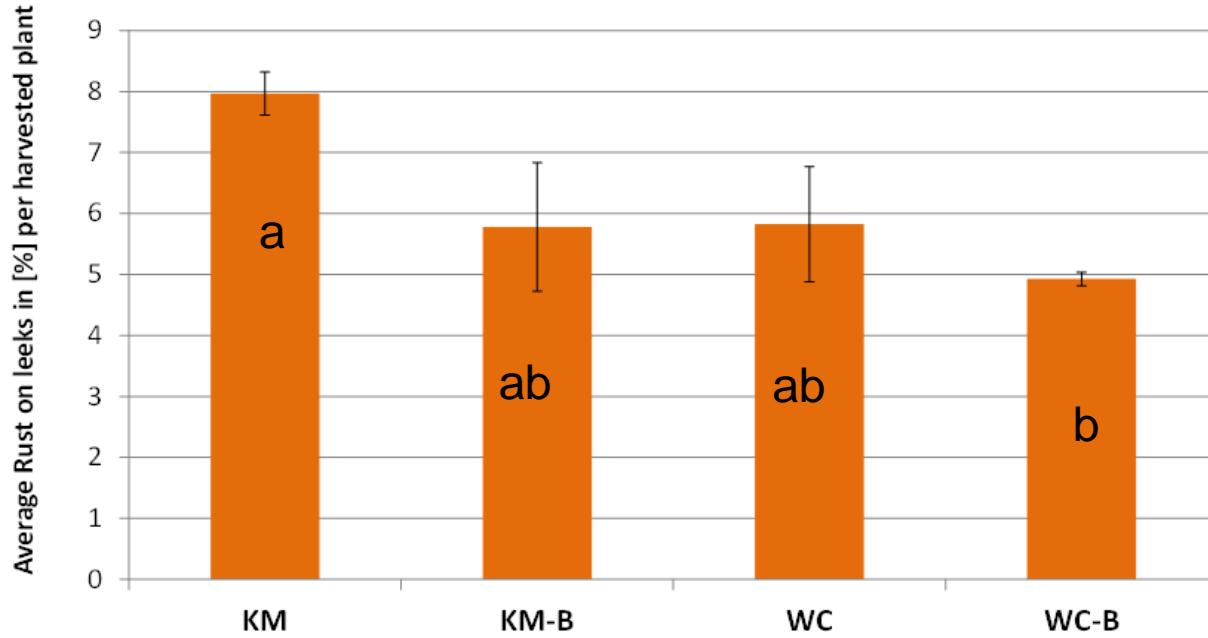


Average infestation of leek plants with Rust (*Puccinia allii*)

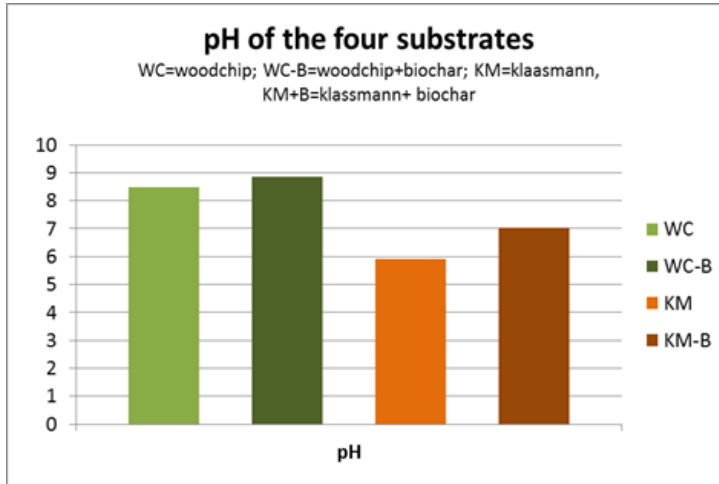
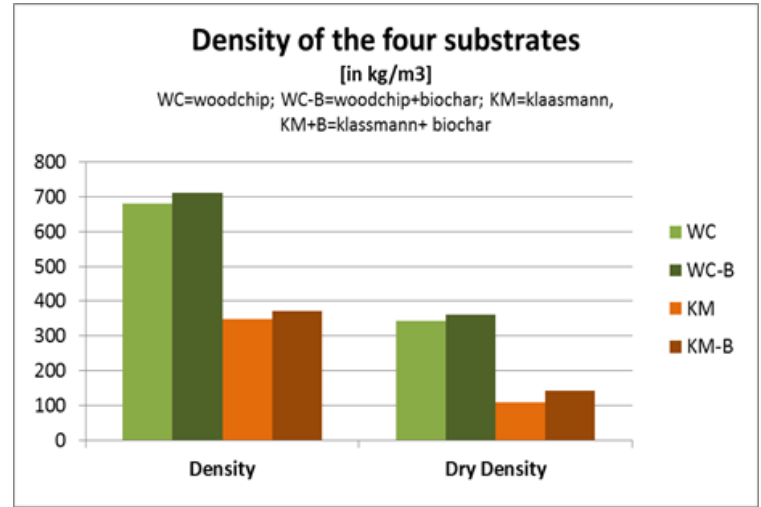
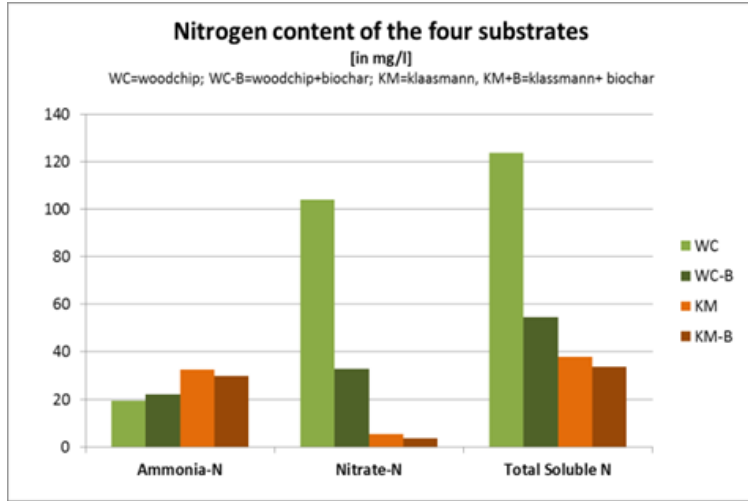
Assessed during harvest, 20. August 2014

KM - Klasmann, KM-B - Klasmann and Biochar, WC - Woodchip, WC-B Woodchip and Biochar

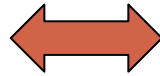
[statistically significant result ($F_{3,272}=4.2097, p=0.006226$) Tukey



Soil and substrate analysis



Sizing and space calculations



Conclusions

- Woodchip compost can successfully replace a commercial growing substrate containing peat.
- Although it may possess some disadvantages with regards to weight/structure or water holding capacity, it provides several advantages (environmental and economic) in other areas relevant to growers.
- Demonstration of possibilities and methods of trialling new ideas, products or methods on a small scale,
- Specifically tailored to the circumstances of a holding or business.

Thank you for your attention!

