

Carbon Gold GroChar Trials 2012 TRIAL HIGHLIGHTS

Carbon Gold produces a range of biochar based composts, soil improver and fertiliser called GroChar. We ran trials with 19 growers from commercial and amenity sectors who used Carbon Gold Composts and Soil Improver in a range of propagation and growing situations. Despite challenging weather conditions our growers showed positive, and in some cases startling, results. Here are the highlights.

INCREASED ROOT GROWTH

The presence of Soil Improver in a compost, both in Carbon Gold Seed and All Purpose Composts and when added to other commercial and homemade growing media, showed increased root size and improved morphology.

“I’m incredibly impressed with root growth once things were established. Perhaps the best medium for growing chilli; I’ve never had such good results.”

Alys Fowler, gardener, writer, TV presenter



Left radish grown in coir based multi-purpose compost

Right radish from the same harvested crop grown in the same compost **with the addition of 10% GroChar Soil Improver.** (Moore, 2012)



Broadbeans grown in John Innes No 1 compost

Broadbeans grown in GroChar Compost

“COMPARING THE PLANT’S GROWTH VIGOUR AND ROOT STRUCTURE, GROCHAR WAS MILES BETTER THAN MY OTHER COMPOST.”

Martin Kalule, International Agriculture, Plumpton College

Sweetcorn plants grown in Sinclair multi-purpose compost

Left top with GroChar Soil Improver 10%, bottom without

Right top with GroChar Soil Improver 15%, bottom without



UP TO 30% REDUCTION IN IRRIGATION

Over two thirds* of our triallists said that using biochar in their own compost or Carbon Gold biochar compost saved water. Jez Taylor of Daylesford and Martin Kyte of Rijk Zwaan both estimated this at a 30% water saving.



“Simply switching from our usual compost brand to Carbon Gold has cut water usage by a third.

The GroChar Compost is less prone to drying out. If plants are left to go dry this can cause plant shock making them susceptible to disease.”

Jez Taylor, market gardener,
Daylesford Organic Farm

“Using GroChar Compost I saw a **30% reduction in watering rates**, as it held more moisture for longer.”

Martin Kyte, Field Trials Manager, Rijk Zwaan

“We immediately found that the Carbon Gold Compost had far better water retention properties. Although it took a little getting used to at first, the GroChar Compost required **less frequent watering** and maintained a **much better average moisture content** than our usual compost.”

Andy Dibben, Farm Manager, The Community Farm

“If we could consistently see over the next five years this level of yield increase, then I can see it having a place in protected cropping **to help me cut down on the water.**”

Alan Schofield, Founder & Grower, Growing with Nature

“My initial observation is that GroChar Soil Improver **definitely helps in water retention.**”

Jonathan Smith, Owner, Scilly Organics

“Despite a rather sketchy year, due to the weather and erratic temperatures, I’ve seen **excellent root growth in the seedlings** I’ve grown with Carbon Gold Soil Improver, **I’ve had to water less** and it also works well in my own compost mix.”

Mark Diacono, author, smallholder, garden designer, Otter Farm

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“The GroChar All Purpose Compost showed a higher capacity to hold water for a long time compared to my other compost. The watering regime was **once a day for biochar plants and twice a day for those grown in the other compost.**”

Martin Kalule, International Agriculture, Plumpton College

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INCREASED RESILIENCE

Adding GroChar Soil Improver to compost and soil appears to extend the time that nutrients are available. This can reduce fertiliser use, and give a more even release.

77% of our triallists reported either an improvement in or matched nutrient availability when using GroChar as part of their compost.



“Kale plugs in GroChar Seed Compost trays (top of photo) are doing considerably better than those without biochar (below) in the intense heat.”

Jenny Griggs (nee Hall), Director, Fir Tree Community Growers

“There was a marked colour difference between the two lettuce batches, with **more vigorous colour at all times** in the Carbon Gold compost indicating it was supplying superior nutrients.”

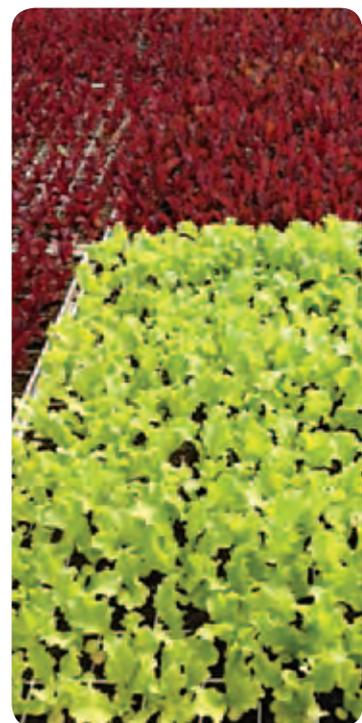
Andy Dibben, Farm Manager, The Community Farm

“Biochar showed a **better nutrient availability** and this was witnessed on the speed of seedling emergence and plant growth vigour. **Biochar seedlings flowered and developed pods faster than the other compost** and the growth vigour has been better in biochar plants throughout the growing season compared to other compost.”

Martin Kalule, International Agriculture, Plumpton College

“WHEN USING CARBON GOLD SEED COMPOST FOR PLANTS ‘FOR SALE’ IN THE SHOP, WE SAW A NOTICEABLE INCREASE IN SHELF LIFE INCLUDING BETTER RECOVERY IF PLANTS HAD BEEN ALLOWED TO DRY OUT.”

Jez Taylor, market gardener, Daylesford Organic Farm



STRONG GERMINATION

GroChar Seed Compost performed excellently in Duchy College trials against a range of peat and peat free composts.[†]

“In our spring cabbage crop (in the tunnel) **the half with the GroChar incorporated into the soil raced away compared to the half without.** By the time that crop was harvested, we were seeing on average a **4-5% yield increase** on the first half of the bed.

Alan Schofield, Founder & Grower, Growing with Nature

“Carbon Gold’s peat-free biochar GroChar Seed Compost produced the same **excellent results** as Klassman’s peat-based seed compost, and it performed as well in terms of germination and growth rate.”

John Overvoorde and Jill Vaughan, Owners, Delfland Plants

Left lettuce at Daylesford Organic Farm – sown in Carbon Gold GroChar Seed Compost

CARBON GOLD™

GRO CHAR

The natural way to a better earth

BETTER THAN PEAT

Adding GroChar Soil Improver to your compost – either mixed pre-planting and sowing, or as a top dressing – can give many of these benefits without having to change your system or current compost.

As part of a compost mix it can also replace some or all of the peat component.

“Mixed it as an additive to my regular prop mix and **the plant growth was amazing!** Using my own compost in the mix seemed to help with the germination.”

Matthew Loveday, market gardener, Little Salad Company

“EXCELLENT PEAT SUBSTITUTE, BETTER THAN GREEN WASTE.



WOULD NOT HESITATE TO USE AS PART OF A JOHN INNES MIX.”

Fergus Garrett, Head Gardener & CEO, Great Dixter



“I initially started trialling Carbon Gold’s GroChar Composts against a peat based compost, but the results were so good I stopped the peat trials and progressed solely with propagating in GroChar.”

Martin Kyte, Field Trials Manager, Rijk Zwaan

OTHER INTERESTING FINDINGS

These findings are not fully substantiated, but we will be doing more trials on them next year.

SLUG REPELLENT

Whilst using GroChar on his cucumbers as part of the soil improver trial Andy (head grower at the Community Farm) noticed that when he didn’t get time to dig the GroChar Soil Improver (90% biochar) into the soil but left it in a ring around the stem of the plant the slugs left those plants alone, and concentrated on the ones with no biochar around them.

* 67% of triallists said they needed less water, 16% saw no difference, and 16% said they needed to water more.

† Carbon Gold Seed Compost came 2nd out of 10 medias trialled, and was top of the peat free medias trialled, composts with GroChar as part of recipe also came 2nd and 3rd in emergence time trials. 63% quoted GroChar range as giving as good as or better results.

USING GROCHAR ON SANDY SOILS

Jonathan Smith, a grower on the Isles of Scilly, saw significant effect on salads grown in sandy soil, even in a wet year.

“The **beds with no biochar on have been very poor** with small lettuces, whilst the ones with char have been generally good.”

Jonathan Smith, Owner, Scilly Organics

For more information visit www.carbongold.com

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