

CARBON 2M™ Activated Charcoal

Available as:

- ☑ Bag (10kg) Fine powder for dry use
- ☑ Superfine pail (454g) Superfine for water mixtures
- ☑ Large Bolus (39g) Mature animal treatment
- ☑ Small Bolus (3g) Calf treatment



Suggested Wood Charcoal Inclusion Rates*

Horses	1-5% of feed per day
Dairy cows	1-2% of feed per day
Calves	0.5% of feed per day
Goats	1-2% of feed per day
Pigs	1-5% of feed per day
Sheep	1-2% of feed per day
Poultry	1% of feed per day

Source: Food & Fertilizer Technology Center, Asia Pacific Region

* Studies have suggested a five-day cycle of activated charcoal treatment every 14 days.

Inclusion of wood charcoal in animal feed is regulated by the CFIA. A nutritionist and veterinarian should be consulted prior to adding activated charcoal to livestock and pet diets or treatments.

Carbon 2M was independently tested at the following universities:



Titan Clean Energy has partnered with PMT, a Canadian leader in animal nutrition products with focus on health and performance, to distribute Carbon 2M products through your preferred livestock centres, retailers and feed mills.



PMT Group

Office: 306-502-1430

Email: customerservice@pmtgroup.com

Made by:



Titan Clean Energy Projects
Office: 306-734-2222
Email: info@titan-projects.com
Website: www.titan-projects.com

For more information and to read testimonials from farmers, please visit:

titan-projects.com/carbon2m

Approved for organic production /
Approuvé pour la production biologique



Activated charcoal for herd health



How it Works

Toxins such as dioxin, glyphosate, mycotoxins and pesticides are efficiently bound by the charcoal, mitigating adverse effects on the digestive system and intestinal flora. Studies have shown that overall health is improved as well as meat, milk and egg production. Animals' immune systems are stabilized and risk of micro-organism infection decreases.

Source: Biochar in poultry farming *Ithaka Journal* 1 | 2012

Charcoal added to the diet of sheep for six months did not cause a loss of nutrients, as compared with sheep not receiving charcoal. A level of 5% of the total diet was given [and] it did not affect the blood or urinary levels of calcium, copper, iron, magnesium, inorganic phosphorus, potassium, sodium, zinc, creatinine, uric acid, urea nitrogen, alkaline phosphatase, total protein or urine pH.

Excerpt from: Cooney, D. (1980) *Activated Charcoal: Antidotal and Other Medical Uses. Drugs and the Pharmaceutical Sciences*, 69(11), 1245-1362
<https://www.sciencedirect.com/journal/journal-of-pharmaceutical-sciences/vol/69/issue/11>

90% of the biochar [charcoal] produced in Europe is used in livestock farming. Whether mixed with feed, added to litter or used in the treatment of slurry, the positive effect of biochar very quickly becomes apparent. The health – and consequently the well-being – of the livestock improve within just a short space of time. In regard to nasty smells and nutrient losses, the use of biochar could even herald a new age of livestock farming, closing agricultural cycles of organic matter.

From an international perspective, we are currently seeing repeated reports on the advantages of mixing biochar into animal feed.

DoThiThanVan (2006). stated that it's used with goats in North Vietnam, and growth rates improved when feed included 0.5-1g of charcoal/kg wt. per day.

Kana et al. (2011) have shown that 0.2-0.6% charcoal added to chicken feed results in significant weight increases...and reduction in ammonia.

Iwase et al. (1990) have demonstrated – in an experimental environment – the storage effect of activated carbon in rumen acidosis in Holstein bulls.

Leng et al. (2012) proved that methane formation could be reduced by 12.7% (10%) when 1% (0.5%) char is added to an artificial rumen system.

Kruger (2012) stated that when glyphosate gets into the digestive tract of animals and humans, it causes detectable changes in the gastrointestinal microbiota. A good prophylactic, etaphylactic and therapeutic possibility of binding botulinum toxin and other toxins... in the gastrointestinal tract of cattle seems to be the administration of biochar.

Excerpt from: Gerlach A, Schmidt HP (2014) *The use of biochar in cattle farming, The Biochar Journal* Arbaz, Switzerland
<https://www.biochar-journal.org/en/ot/9>

How it's Made

Titan uses wood inputs for our proprietary pyrolysis process in central Saskatchewan. The wood is ground and heated to a very high temperature under a vacuum, which drives off gases and carbonizes the wood. The resulting biocarbon is then activated and ground to the desired size for Carbon 2M.



What is Activated Charcoal?

Our charcoal (also known as biocarbon) is a completely natural, odourless, flavourless product produced by carbonizing biomass and commonly used to filter contaminants from water and air, among many other uses. Once activated, charcoal boasts a high surface area that effectively binds impurities. Studies have found that when it was added to animal feed, initially as a colourant, the animals recovered from illnesses faster, and required fewer or no antibiotics to do so. Not only that but dairy cattle produced significantly more milk and the barns smelled better.