

An Open Letter to Neil Young Regarding
His Protect Earth Campaign

Prepared by

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Dear Mr. Young,

Regarding your vow to Protect Earth via advocacy of organic cotton,

Based on the latest information from the Food and Agriculture Organization of the United Nations (FAO) and the International Cotton Advisory Committee (ICAC), world cotton production accounted for 2.6% of world arable land in 2011, the latest data available. Your assertion that cotton accounts for almost 5% of earth's arable land is in error by a factor of two, and this is actually one of the more benign and least inaccurate messages about cotton on your web site.

Certain retailers and producers of organic cotton have propagated the myth for decades that cotton accounts for 25% of all pesticides used in agriculture in order to achieve market share gain. There is no statistical basis for the claim that the world cotton industry accounts for one-fourth of pesticide use, and if organic cotton were indeed inherently superior to conventional cotton, advocates of organic would not need to exaggerate and distort.

Sales worldwide in 2012 of plant protection chemicals (pesticides) totaled US\$51.2 billion (Cropnosis, a UK based chemical consulting firm). Pesticide use on cotton was US\$3.2 billion, or 6.2% of the world total, down from 11% of all pesticides used worldwide in 1986. Plant protection chemicals include herbicides, insecticides, fungicides, seed care chemicals, professional products and others.

The assertion on your web site that cotton uses 25% of all of the petrochemical based pesticides, fungicides and herbicides globally is in error by a factor of approximately four.

In the United States, the average cotton yield is about 830 pounds of lint per acre, and a t-shirt requires about one-half a pound of cotton. Therefore, each acre of cotton in the US could result in about 1,660 t-shirts. Average applications of pesticides on cotton (including all categories such as herbicides, insecticides, and fungicides) are about 0.8 pounds of active ingredient per acre (ICAC Expert Panel on Social, Environmental and Economic Performance of Cotton Production, 2010). Therefore, in the US, it takes about 0.0005 pounds of pesticides to grow enough conventional cotton for just one T-shirt. The statement on your web site that it requires about 1/3 of a pound of pesticides and herbicides to grow cotton for a t-shirt is in error by a whopping factor of 690!

Even though cotton is grown primarily for fiber, it is regulated as a food crop in both the United States and the European Union. The statement on your web site that it is regulated as a non-food crop is simply false.

Common to many of the allegations leveled against cotton is the use of evocative and subjective adjectives such as "toxic," "harmful," "hazardous," "synthetic," "poisonous," "dangerous," and "risky." Such adjectives are hard to refute because they are non-objective, and because critics make no differentiation between hazard, exposure and risk. (A substance or piece of machinery can be hazardous, but if exposure is limited through safe practices, risk is small.) However, use of

such evocative language undermines consumer perceptions of the safety of cotton.

Cotton's detractors also commonly hedge their statements with modifiers such as "may," "could," or "as much as." This allows critics to imply that individual occurrences or worst-case situations are common to the cotton industry without having to document sources.

You do the same by saying that chemicals used in cotton production are absorbed into soil, get into water supplies and rivers and affect life forms downstream. Agricultural chemicals, including those used in cotton, are heavily regulated by the US EPA and by state agencies. Every cotton farmer in the United States must carry a chemical handlers license, and all states engage in rigorous and frequent inspections of all agricultural operations. The allegations on your web site are made without even a pretense of verification or documentation.

Regarding water use, you have actually underestimated requirements per t-shirt, but you are misrepresenting the data. Average water applications on cotton are 70 centimeters (28 inches), including both rainfed and irrigation sources. At average yields, that results in use of about 4,000 liters of water per t-shirt. But so what? Every drop of water hits the ground and returns to the eco system, and cotton farmers are actually among the most efficient in the use of water. Furthermore, there is absolutely no advantage in terms of water use in producing cotton using organic or conventional agricultural techniques. Your advocacy of organic cotton through demonization of conventional cotton results in not one liter of water saving.

Please be assured that I am not against organic cotton. All production systems have many characteristics in common. All cotton is grown in nature, on land, by farmers, who turn sunlight, nutrients and water into cotton. All cotton, and all the inputs used in its production, are fully biodegradable. Cotton supports the livelihoods of hundreds of millions of producers around the world. Because cotton is a capital intensive crop, cotton has led agricultural science in the development of integrated pest management, best management practices, conservation agriculture, and in the development of farmer field schools. All cotton producers, regardless of production system, have much to be proud of and much to showcase in advertising campaigns.

Cotton is produced by millions of households in about 80 countries, and there are always going to be foolishness, errors and even perfidy. Nevertheless, 45 million households producing 25 million tons each year can't all be stupid, helpless or misinformed. Farmers grow cotton because it is beneficial to themselves, their families, their communities and the environments they live in. Your allegations are unfounded and untrue and serve only to undermine the source of livelihood for millions of cotton farmers around the world.

Should you have an interest, I would be happy to engage in an objective point-by-point discussion of the world cotton industry and its environmental and social impacts.

Sincerely,
Terry Townsend
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