

May
2023

The Effects of Plastics on Farming & Health

Dr. Dana Nettles, Pharmacist, Farmer, Herbalist

Dr. Nettles Farms

About me



- Dr. Dana Nettles , Doctor of Pharmacy, organic farmer and herbalist
- I have been farming for over 50 years
- Dr. Nettles Farms LLC. has been seeded in love, science, and helping others since 1933
- We are a family of pharmacists, doctors, farmers, herbalists, naturalists, and homemakers
- Our ancestors grew up in Northern Alabama and on the Gulf of Mexico harvesting the land for medicinal purposes
- Today, as physicians, scientists, dentists, and pharmacists, we bring healthy nutrient dense herbs, vegetables and fruits from our farm to your table

Plastics Today

There's no denying that plastic has its place – it's cheap, lightweight, and responsible for many time and cost-saving advancements in agriculture:

- Plastic mulches can help with weed suppression
- Plastic drip irrigation allows for more efficient watering
- Silage wrap allows farmers to produce and store nutritious feed
- Plastic bins and crates make for easy harvest, storage, and transport
- Plastic isn't just a problem in supermarkets
- The plastics that are used are often difficult to recycle.



Where we are today



- Scientists are showing that we are sending tons of tiny plastic particles into our soils each year, potentially affecting crops and our health.
- Studies have found that certain chemicals in plastic can leach out of the plastic and into the food and beverages that we eat.
- We have started producing our own compost and liquid fertilizers to eliminate some of our plastic environmental footprints.

Natural Farming Techniques

- No-till farms like us use leaves, straw, cardboard, and coffee bean bags as mulch.
- Blankets beds and pathways with cardboard to suppress weeds and improve the soil as it breaks down.
- We get free wood chips from tree service companies to cover the cardboard.
- As you may imagine, no one suggested alternatives for hoop and greenhouse plastics. Some farms opt not to use them, but for many farms, especially in cooler climates, that's not a sustainable option.
- For farmers markets, our organic tea business sells in cardboard tea boxes and reuse and swap out containers such as mason jars for regular customers.
- We use natural farming techniques on our farm which eliminates the need for plastic.



Natural Farming Mimics Nature

- As a practicing pharmacist in a community pharmacy for over 30 years I have seen how have affected my patients.
- Ingestion of microplastics can cause inflammation and irritation. This can lead to DNA damage and promote cancer.
- We as farmers and scientist must realize that plastic leaves a permanent footprint on our environment and our bodies.
- The problem for farmers is that we use plastic mulches to suppress weeds, and plastic drip irrigation allows for more efficient watering.
- Our greenhouses extend the growing season, and plastic bins and crates make it easy for us to harvest, store and transport items.



Are There Any Alternatives?

- Bioplastics is used to refer to biodegradable compostable plastics. This can be a misleading term because not all bioplastics are created equal
- The good news is that there are some alternatives available for farmers looking to reduce our dependence on plastic products.
- We do not use plastic seed trays, and our pots are made from wood fiber, no nursery pots, no plastic mulches, etc.
- As with most issues of environmental sustainability, the use of plastics in agriculture is not black and white.
- We recommend just try to eliminate a source of plastic on the farm in at least one form every season.
- Our philosophy is we try to make the best choices that we can with the options that we have.



THANK YOU!

Dr. Dana Nettles

Website

www.drnettlesbeauty.com

Email

drnettlesnaturalbeauty@gmail.com

