Introducing Mulch Matters: Our Podcast Journey Begins.

(00:00:00) Nataliya Shcherbatyuk

Hello and welcome to the Mulch Matters Podcast where we will explore the intriguing world of mulch and its impact on agriculture and the environment, as well as update you on the latest research about soil-biodegradable mulch and recycling options for plastic mulch.

(00:00:20) Nataliya Shcherbatyuk

I am your host, Dr. Nataliya Shcherbatyuk, and I am a communications specialist for the project, “Improving end-of-life management of plastic mulch in strawberry system”. In each episode, we’ll dive into the latest research, trends, news, and insights on why mulch matters and how we can improve plastic mulch end-of-life options. We'll also branch out and discuss other plastics as well as talk to researchers, experts, and practitioners in the field who will share their insights and experiences on how to use mulch effectively in different settings.

(00:01:14) Nataliya Shcherbatyuk

So, what is mulch? Mulch or mulching is a key technique in agriculture that involves covering the soil with a layer of organic or inorganic material. Now, this layer provides a wide range of benefits that can significantly improve crop yields and soil health. One of the important benefits of using mulch in agriculture is moisture retention. By covering the soil with a layer of organic or inorganic material, mulching helps to reduce water evaporation from the soil surface, conserving soil moisture. And this is particularly important in arid or drought-prone areas, where water conservation is essential for crop survival and sustainable use of water resources. Mulching also helps to optimize soil temperature. For example, dark colored mulches absorb solar radiation and transfer it to the soil to increase soil temperature, while light-colored mulches reflect light and cool soil temperatures. And this can be particularly beneficial for plants that are sensitive to extreme temperatures and enables crops to be grown across a wider range of climates. Mulch also acts as a natural insulation, protecting the roots of plants from extreme heat or cold.

(00:02:56) Nataliya Shcherbatyuk

In addition to its role in moisture retention and temperature optimization, mulching provides several other benefits. For example, it helps to suppress weed growth, reducing the need for herbicides and manual weeding. Mulch also helps to prevent soil erosion by protecting the soil from the impact of rain drops and wind. Furthermore, mulching with organic sources like sawdust or woodchips can help to improve soil health by adding organic matter to the soil. As the material decomposes this organic matter provides essential nutrients and in the long-term can improve soil structure, making it more fertile and easier to work with. Did you know that some mulches may also even attract beneficial insects and microorganisms, deter pests, and play a role in pest and disease management?

(00:04:07) Nataliya Shcherbatyuk

It is very important to mention that mulching can be done with a variety of materials, such as straw, leaves, wood chips, grass clippings, and even plastic. And the latter one is what we will be mainly focusing on here. And specifically, we will discuss how we can improve end-of-life management of agricultural plastics with an emphasis on plastic mulch as this will help

decrease environmental plastic pollution. There is a definite need to find a balance between the short-term benefits that the agricultural sector gains from plastic mulch use and the long-term environmental costs of plastic pollution to society as a whole.

(00:05:02) Nataliya Shcherbatyuk

Unfortunately, our world is at the point where plastic pollution is one of the biggest environmental problems that our global community faces and there is no time to push this complex problem to the bottom of the priority list. Nowadays we can find plastic literally everywhere, from single-serving cutlery and beverage cups, food packaging, plastic bottles, and caps, to microplastics in our clothing and cosmetics. Although agriculture is just one of multiple sectors that contributes to plastic waste generation through annual plastic mulch use, we need to work together on finding better technologies that reduce waste generation and encourage recycling of plastic.

(00:05:59) Nataliya Shcherbatyuk

So, whether you're a researcher, farmer, gardener, or simply interested in sustainable agriculture, this podcast is for you. Now please join us for future episodes, sit back, relax, and let's explore the world of mulch together.

(00:06:20) Nataliya Shcherbatyuk

That’s it for today and until the next episode. You can find more information by following us on Instagram and LinkedIn by @mulch_matters and going to our websites www.smallfruits.wsu.edu and choose mulch technologies.

(00:06:43) Nataliya Shcherbatyuk

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