

[MUSIC PLAYING]

INTERVIEWER:

We are at the South Carolina Department of Natural Resources Marine Research Center on James Island, and I'm speaking with Kim Counts Marganello who is a water resources agent for Clemson Extension. Kim, there are a lot of people involved in a program that's going on here today, so tell us what the name of this program is, and who all is making it happen.

- Yes ma'am. We are a part of the From Seas to Shoreline project. It's led by South Carolina Sea Grant Consortium in partnership with the South Carolina Department of Natural Resources and Clemson Extension.

- And what's the purpose of it?

- We provide students an opportunity to learn about the importance of the salt marsh through actively engaging in a salt marsh restoration. And to date, it's the only one of its kind in the state of South Carolina.

- Why do we need salt marsh restoration?

- We're very fortunate in South Carolina, in that we have nearly 350,000 acres of salt marsh. And what I think sometimes we take for granted is that the salt marsh is one of the most biologically productive ecosystems on earth, right behind the rain forest.

INTERVIEWER:

Right behind the rain forest? Really?

KIM COUNTS MARGANELLO:

Yes, ma'am. We are full of life here in the salt marsh.

INTERVIEWER:

The kids who came down today, did they have an opportunity to try to see what was out there?

KIM COUNTS MARGANELLO:

Absolutely. So we give the students an opportunity. They do scientific transects, where they go into the low marsh and the high marsh and see what sort of differences they can find between the two areas. We also do a scavenger hunt, where we basically-- we really just want to give kids an opportunity to get their hands and their feet muddy, and see what kind of critters they can find in the salt marsh.

INTERVIEWER:

You have these little trays, and you have one of them fixed as if spartina grass were already established, and the other without it. And you show how pollutants move. So tie that in to what's actually happening here, what the students are doing.

KIM COUNTS MARGANELLO:

Absolutely. So one of the activities that we do with the students is we want to make sure that they understand that just like a water filter at their home-- how that might filter the water for them-- our salt marsh is going to filter the water for us. So all that storm water runoff that's ending up in our salt marsh, the salt marsh has the ability to remove pollutants and sediment from the water that eventually is going to find its way to the ocean.

- And when you gave the opportunity of, which one would you rather

go swimming in, there was no hesitation at all. These kids-- you said that the salt marsh actually cooperates with the school calendar, and that that's a part reason this program works so good. So tell me how that all ties together.

- Absolutely. So in the salt marsh, as you know, Amanda, our dominant plant is spartina alterniflora. And it is really our seasonal color here in the low country. In the summertime, you almost have to have sunglasses to look at it. It's just that vibrant green. During the fall, it's a cornucopia of colors, oranges, yellows, reds. Winter, it gets really drab, it dies back. And in the springtime, which is where we are, we get a mixture of green and brown, new growth and old growth. And what happens is whenever our students are coming back from their summer vacation, they are-- our spartina is starting to seed out. And so our students can do a couple activities with their teachers in the classroom, and then come around October, they head out into the salt march and they collect seeds.

INTERVIEWER:

They actually collect the seeds themselves?

KIM COUNTS MARGANELLO:

Yes, ma'am.

INTERVIEWER:

And then do they take them back to the school and grow them out?

KIM COUNTS MARGANELLO:

They take them back to their school, but before they grow them out, they replicate what's happening in nature in the wintertime. They store them in water in a refrigerator, in a cool environment--

INTERVIEWER:

Just like we'd have on the beach.

KIM COUNTS MARGANELLO:

We tell everybody, take a break. You know, go have your winter vacation. And then when they come back from the holidays, they're going to take those seeds out and

they're going to germinate them. And the way that they germinate them is basically by putting them on a sunny window sill. And once they germinate, then the kids cultivate them, grow them up, and then they come to today, where we're actually planting them.

INTERVIEWER:

I guess if you're going to send children out in the marsh to collect seeds, and do all this kind of stuff and plant them and grow them, you must give the teachers some education ahead of time.

KIM COUNTS MARGANELLO:

That's right, Amanda. We do a series of teacher workshops in the summertime. Our partners, South Carolina Sea Grant Consortium, SCDNR, and Clemson Extension-- we offer our teachers an opportunity to really become empowered and really learn about the salt marsh and about the process that goes into salt marsh restoration. And even our returning teachers have the opportunity to come to a returning teacher workshop, one that's geared towards somebody who's actually done a lot of the work.

INTERVIEWER:

I was impressed that when it was actually time to put the plants in the ground, we took hula hoops out there, so that we knew where we were working, we wouldn't tromp over somebody else's. And you really went through the whole process of how to put the little plant in the ground, and talk about why it's so important to get it done just right.

KIM COUNTS MARGANELLO:

And I think, exactly-- that's a very good point in that, one of the things that's interesting about this project is our students, and our teachers, and our staff really had to figure out how to do this. We didn't have a magic bullet that told us how to grow and to plants spartina. So it's something that we've fine tuned over the years, and we really-- the students, we tell them if they can plant in the pluff mud, they can plant anywhere. And most of them have never even planted a plant before, a lot of them.

INTERVIEWER:

And one of the things that happens a couple of years before you actually come and put these plants in, is there's another project going on that tries to create the proper habitat.

- That's right. It's the SCDNR SCORE Program, which stands for South Carolina Oyster Reef Enhancement Program. And basically, the way our oysters reproduce is, they produce a free floating larval form, called spat, that floats into the water column. And that spat needs oyster shell to fall out on and grow more oysters. So whenever people have oyster roasts, which of course we're known for in the low country, they can recycle their oyster shells, get them to DNR, and DNR will plant them out into the water.

INTERVIEWER:

So the oysters, as the water comes in, cleanse the water. They filter the water. And then behind these oyster reefs they deposit that organic matter. And then you come in, plant the spartina grass. And as things-- pollutants come off the shoreline, they are captured and held in the soil, and the

spartina cleanses the water of those.

KIM COUNTS MARGANELLO:

Absolutely. The spartina is going to act like a filter. It's going to help uptake excess nutrients, and pollutants like bacteria, trapped sediment, etc. So between the spartina and the oyster reef, we're really doing a good thing.

- Well I'm looking forward to having many, many wonderful seafood meals that come from the wonderful water-- clean waters of South Carolina. Thank you for you all are doing here, and if people want to know more about the program, what's the best way to find out about it?

KIM COUNTS MARGANELLO:

W-W-W dot scseagrant dot org.

INTERVIEWER:

Seagrant dot org.

KIM COUNTS MARGANELLO:

Yes, ma'am.

- Thanks so much for letting me come and get my hands dirty--

- Thank you, Amanda. In that wonderful pluff mud.

- Thank you for joining us.

[MUSIC PLAYING]