

Somersworth Middle School:

Chris Asbell 7th Grade Science Teacher

Lukas K. - 8th Grade Student

Zach W.- 8th Grade Student

Worked with NRRA for TOLD "Trash on the Lawn Day" - have been looking at their waste stream for the last five years. Field trips to turnkey landfill and other places.

Literally laid tarps out on the lawn at the school and sort and weigh the trash - and the findings from them - an effort to educate students and staff as well as the community.

Lucas K. - 4 year study - 1% -2% decreases in paper, \$1,115 dollars in composting - making our own compost, making our own garlic powder and selling. Styrofoam trays - 38.70 a day - after 26 days we double the cost of one day's worth styrofoam trays, it is more cost effective to use the plastic sterilite trays. It saves money.

Ebel thinks their efforts are laudable. Discuss with the students about their education efforts within the school.

Lucas K. - composting bin - images recycling bin - images to show students and a trash bin

Teacher notes that they are 3D posters with the artifacts/lunch items on the posters.

John O'Connor - interested composting and food waste - are you looking at what the students are actually throwing away - ie: broccoli etc?

Lucas K. - We see a lot of leftover vegetable or pizza or buns things

Teacher discovered they can actually recycle the milk cartons.

9,000 lbs of food waste diverted per year./400 students

Ebel asks about food prep

Teacher - cafe press is currently not composting . It is a 3rd party system - we are working with thim

Zack - the compost pile at school is outside we add to it. We have garlic and another garden. Mr. Fox program has a bucket a day - it's a large bin with a lid and they come and collect what we have

Jack W - 8th grader at SWM - class AA - stable double Class A will not gain any heat and can not be used on crops for human consumption - Off Spec - used for capping of a landfill, not used anywhere but landfill capping

Silverware use - SMS 1,100 pounds of plastic - students wanted to find ways to reduce our single use plastics. We are seeking to have reusable

Meat and Dairy composting is inhibiting us from the middle state towns and cities get that benefit. Composting in NH would give us an influx of jobs, and save towns and cities money.

Ebel - asks are you working with your school board to discuss these costs.

Jack W- we did present to the school board and they are

USDA planning grant - N.H. Farm to School Program - Award - Climate Fellow - \$1,500 grant as a teacher I got, but donated to the elementary school. We are hoping to bring the other schools onto the system.

Ebel asks if this is a replicable model?

Students concur that they do feel is replicable - Teacher feels that the current regs are making it prohibitive and

\$420,000 a year to remove trash from Sommersworth - 30% of that waste is food compostable waste.

We own the equipment and dishwasher.

Adam Peer American Chemistry Council - Christine Cassidy - DART

Plays a video on context for discussion. Video:

MRF for the future how can we recover and recycle flexible packaging. Launching proof of concept. Auditmaton, optics, sorting technology.

Seeks to keep flexible plastics in a circular economy.

Recycling has to be a part of the solution. Want to do the right things to be a part of the system. We must deal with these materials that are flexible. MRFF materials recovery for the future.

Christine Cassidy - DART - 15,000 employees. We don't want our products in the landfill and are taking the initiative to invest in opportunities to take responsibility for their products. New Innovation center seeks to see new types of products to reduce what goes into our products - we make everything - compostable, paper, plastic products.

Bale rigid bales of mixed rigid plastics - and foam material.

Murray. Asks about composting plastics into composting piles is it suitable for food use/growing?

Cassidy says no, but folks like the Mercedes center uses that type of thing for municipal soils around the grounds.

Assoc. Plastic Recyclers (APR) works with the members to recycle and resell

J. O'Connor asks about ensuring to make sure there is no contamination in food product uses.

Cassidy says we are working to help find domestic markets in the US and Canada to find markets. Looking to at least use 50% recycled content products.

Ebel - is asking about where prices of virgin plastic products versus cost of recycled products are sometimes cost prohibitive to purchase do you see a change for those to decrease and increase for folks to purchase?

Ebel is curious what the industry can do to help facilitate more recyclable products.

Cassidy - there are benefits and disadvantages to all products. For example polystyrene isn't widely recyclable in all communities.

Ebel - from a business model standpoint are you having a conversation about the long term use and benefits/costs

Cassidy - larger companies have sustainability goals - APR has a guide for recyclability to help guide businesses.

Our company works with APR closely to look at packaging team training.

Ebel - sees trend on user responsibility and producer responsibility to make recyclable materials

Lids Caps, MRFs hate them plastic caps are not really going into the recycling.

Cassidy caps on containers - we think those types are going to be moving to a non-detachable flip top type lid.

John O'Connor - what about product integrity oxygen and shelf-life extending and balancing those things.

Cassidy doesn't have products that have expiry dates, shelf life - etc. we don't do that.

Ebel asks about compostable materials plastics -

Cassidy - food services plastics are not designed to compost in 20 days and some take 80+ days we are offering grants to some municipalities to see what partnerships we can do.

Adam Peer - is offering some suggestions and recommendations

Would ask us to reframe - plastics is a valuable commodity - think of it as a feedstock and thinking about and economic develop

What are good fits for NH within ECON DEV. division - it has to be made close to hop - and have your econ. Dev. Bureau involved.

Washington State created a new agency Recycling Center - similar to what NRRRA does - suggests we look at that law and see what make may make sense for the state. We'd like a tech expertise arm and agency is charged to work with the commerce department to interface. Also look at PA and the way that they developed some of it

We see a great need for infrastructure through consumer education and the technology and infrastructure to make recycling viable. Notes that Bales are quite different between how do we standardized them. How do we know what the manufacturers are getting

Waste Audits and Recycling audits are needed. To see if demonstration products make sense.

Comte may consider - recognition for companies who do meet those needs federal governments are willing to help share that knowledge

Procurement laws - looking for new end markets and data and industry regulatory approval - there are good materials that recycled plastic can do.

Think about continued industry engagement, potentially a solid waste taskforce - to drill down into the waste and recycling. May be best suited for an ONGOING group that is longer lasting.

Seeks uniform recycling guidelines for consumers/users - recognizes that it is tricky due to municipality differences.

Working with the Grocer's Assn' to make a return to retailers program - and is working with the effort to getting those flexible plastics out of the way and get it out of the recycling.

Sen. Watters- PPP with a fund that may receive a state grant monies with a tipping fee to go to creating an instate MRF - is that appealing to your org. Or similar ones?

Peer- we would be interested in learning more. We are evidence and data driven if there are things that moving the needle on the discussion we are interested.

Watters - what about Extended Producer Responsibility - what about a cap and trade type system, or credit trade type system to incentivise

Peer - there are a lot of different ways to have these discussions. We are looking at the Van Dyk MRF

Residual bales (aka trash) we are looking at a second sort process to further take out items that are still recyclable occurring in Portland Oregon. Considering that this may be an economy of scale.

Watters is interested in incentivising source reduction.

Peer notes that there was parity at one point and there isn't now, so now we are forced to really look at the supply and get it right. How do you get customers comfortable with items that are not a virgin. Really feels that it is important to get the supply right.

Ebel - as far the MRFs how expensive is it to get a MRF to the point where it can do the flexible so because it is the bane of their existence currently.

Peer - the upgrades are not cheap - but the goal is to reduce "system down-time" and hope to show numbers that express that is scalable.

Ebel - it would be good that there if there is coordination between consumer expectation and products. Is there a state that does it well?

Washington state does it well they go back and review what did they do, and what are the findings. They are looking at the total life-cycle including off-gassing and resources. Cassidy says Oregon did that too.

Ebel: You are the first people to be able to talk to us as the federal level.

Peer: Save our Seas still pending act - looking at investing money into recovering recycling. We are working with the EPA to help move the needle at the federal level.

Cassidy: we need a modern day infrastructure for us to really meet the standards of recycling and that requires investment in

Peer: if Beijing were to change it policy - and if so - we want a domestic infrastructure to withstand international policy changes.

Watters: What is the cost ratio - between transportation costs.

Peer- the further away you have to ship it out, the more diminished return you get. Transportation costs take the viability out of recycling.

Watters - what about demand.

Peer - I am on the supply side - if we get a good clean product there will be demand.

Ebel - asks about infrastructure too.

Peer - sustainable conference in Colorado - there fees are 17-18. Some MRFs are a not for profit, some are non-profit and there for there are some differences in how they operate. There is more than one model to look at.

Cassidy - it should be pretty easy to start stuff here, since the technology is available and waiting abroad too.

Ebel asks to link to the video, and asks for digital transcripts of their testimony.

Lisa Drake - Stonyfield Yogurt, Londonderry - Director of Sustainability

- These issues are at the front of our mind
- Commends the middle schoolers and thanks the committee
- Been in NH for 36 years.
- Experience in manuf. And packaging.
- Starting with recycling - 1992 recycling started within the company to do a detailed study of the waste and what it is comprised of. Not only environmental but cost savings.

- Anything going into dumpster for trash was clearly something we bought that didn't serve a purpose.
- We want to focus on eliminations
- We work many recyclers and waste haulers - within the past 6 months we are having to pay to haul to have our plastics hauled away and we've never had that before.
- We are reselling boxes that are flattened and are in great shape there is a market out there and the revenues we get for that is MUCH MUCH more stable than recycling revenue sources.
- We look to places to utilize food banks to get edible products that don't sell into the hands of the food bank

Ebel asks about items that do go to donation if there are any concerns.

Drake says no - we code out anything that is past its expiry date it does not get donated. We treat anything donate with the same level of care as we would anything that is sellable.

Have onsite digester - anaerobic digester - some things are going to pig farmers too with giant collection buckets.

O'Connor asks about recycling and energy recapturing etc.

Drake - says they recapture methane and heats water system - and we use an on-site digesting and off-site anaerobic digestion. States we also lack an anaerobic digestion system that could be a viable energy source too.

Drake discusses packaging - are aware that consumers are making a choice - but knows that packages protect the product - and then also has a marketing function as well as an environmental impact. We are seeing a collision between convenience demands and the environment and we are taking a lifestyle approach. Telus - study 1995 - the lightest package is the best package. Our greatest concern is climate change and responsibility for greenhouse emissions and recycling and want to support recycling - where can we have the least impact on our greenhouse gas emissions.

Set up a take back program for #5 plastics. Partnered with a company called preserve - called give me 5 and it is something the whole foods stores and was not a perfect solution, it was hard for them to deal

Our goal is to reduce by 35% in packaging - packaging is 8% carbon footprint - and most of it is in making milk etc. We are looking at bio-based content and recycled content as much as possible. We'd like to get out virgin product.

FDA approval has challenges because dairy has its own separate regs within FDA.

Technology developing to break down re break things down - through chemical recycling and chemical.

J'O O'Connor - what do you do with returns from super markets

Drake - we don't physically take it back - we do offer credits etc.

Ebel asks about what conversations you are having to increase using increased recycled products.

Drake - we are constantly working with folks who are seeking to do the same thing - including working with those who may be seen our competitors to really shift the lane and conversation and working on doing things ourselves.

Ebel - this is challenging, so many pieces that are not really well coordinated.

Drake - we recognize the need to potentially streamline the product

Murray - asks about consumer instruction on what to do with their recycling.

Drake - yes we are working through. We haven't put that stuff on our products yet, but

Ebel - what about glass?

Drake - generally speaking - glass is heavy - it's hard to say, we do see that companies have tried, but glass is heavy, but then again, never say never.

Ebel asks for a digital file of Ms. Drake's statements.

Katie LaJoie - Statement on Zero Waste - RN worked at the Dept of Health but is presenting on behalf of herself and John Tuttle, not on behalf of any org she previously worked. Provided digital testimony this morning.

Zero Waste International - conservation of all resources - no discharges to air, water, or land. Sees the world going to this model as was just at a conference

Keeping yard waste - and compostable organic materials out of the landfills to build better soils.

Feels there is no capacity issue at landfills but rather that it is because things that are compostable are going into the landfill and we are not recycling enough. States that diverting material out of the landfill is the problem

Seeks to have proper funding to DES.

Waste is a verb, not a noun. It's something we do - it's something we can change and protect people and the planet. The links included show what's happening all over the world.

Ebel - asks about the methane being emitted is primarily from the food waste/organic material?

LaJoie - says yes, the majority of the methane is from the organic food waste that is compostable.

Ebel asks about the sullivan county action plan are counties doing that?

LaJoie - says we did that on our own.

Oct 21 and 23rd at 10am are our next meetings to tackle report writing