

NC Agricultural Mulch Film Recycling Project



Project goals:

- Make recycling the preferred method for disposal of plastic mulch film
- Reduce cost for the farmers
- Remove mulch in a way that is more efficient for farmers and prepares the material for recycling
 - Make the lifting and winding process more efficient
 - Lift the mulch in a way that minimizes dirt and contamination for recycling
 - Wind the plastic into rolls that are easy to handle for reprocessing
 - Facilitate a convenient way to move the plastic to a recycler instead of a landfill
- Work with reprocessors and recycling equipment suppliers to develop process for recycling mulch film

Farm-related accomplishments to date:

- 2017 - Worked with three equipment manufacturers to test various concepts for mulch lifting and winding
 - Ride the row, slit and wind the film
 - End of row concept: lift then wind in separate operation
 - Roll the row: roll the film into a large roll
 - Tested a mobile bailer
 - **Conducted time studies and determined a cost savings of at least \$125 per acre lifting cost for both ends of row and ride the row processes**
 - Developed a list of Best Management Practices
- 2018 - Selected the ride the row concept for further trials
 - Purchased equipment from CropCare for further trials
 - Conducted tests on two farms with a total of 30 acres
- 2019 - Conduct additional trials
 - Test in a different area of the state with different crops, soils, and conditions
 - Gain exposure of the project to farmers in another area of the state

Considerations for participation in the farm trials:

- Need to mow the organic matter on top of the film with a flail mower
- Be willing to work with WRP. Be willing to use the equipment to lift a large portion or all of their crop to gain a strong understanding of the benefits and shortcomings
- Ideally a variety of crops - tomatoes, peppers, squash, etc.
- Use 1.5 mil minimum thickness mulch film
- Willing to host an event where visitors from neighboring farms and others from WRP, Extension, etc. attend.
- Have a minimum 60HP tractor with 3 point hitch
- Willingness to follow Best Management Practices as much as is practical, and assist in the further development of the BMP
- Willing to pull the drip tape separately from the mulch
- Willing to prepare the field using a flail mower adjusted carefully to minimize damage to the plastic mulch
- Willingness to let WRP representatives visit site (during times scheduled in advance) and speak with farm owners and employees about their experience



See equipment use video at www.ncagplastics.org