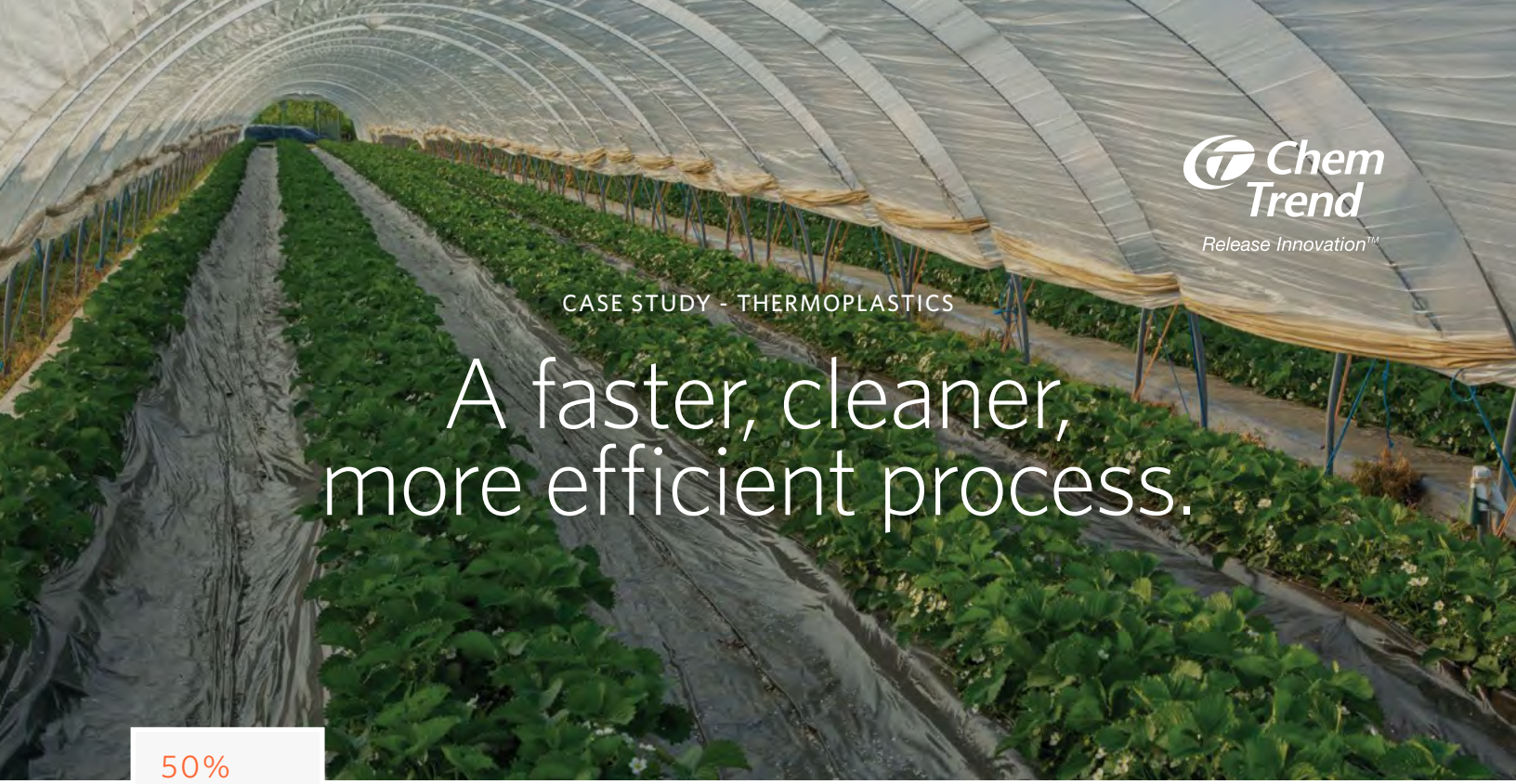


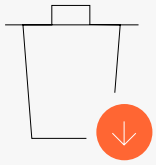
Chem Trend
Release Innovation™

CASE STUDY - THERMOPLASTICS

A faster, cleaner, more efficient process.

50%
FASTER, MORE EFFICIENT CLEANING

26%
REDUCTION OF SCRAP



WHAT WE ACHIEVED.

The use of extruded film in agriculture is ubiquitous and includes everything from greenhouse coverings and geomembranes to silo bags and screen siding. When an international garden design company was experiencing problems with their extruded film production process, we turned our focus to the productivity potential of the machinery. The result was a reduction of scrap rate by 26%, a 50% increase in cleaning speed and efficiency, and an improvement in the quality of the end product.

HOW WE GOT THERE.

The customer came to us with a range of needs and initiatives. Their extrusion lines, which produce both natural and black film, were experiencing high levels of contamination — there was contamination in the splice region of the die and screen contamination, along with the excessive occurrence of black spots caused by carbonization. To minimize the waste this was causing, they had created an internal recycling line to reprocess scrap generated by the insufficient cleaning during color transition.

We worked with their team to decrease the time of color transition through a faster cleaning process. To develop the best cleaning performance, we used a blown film extrusion line and conducted tests, starting in the lab and moving to pilot testing in the factory. Out of these trials, the best-performing combination of process parameters and purging compound was defined in order to solve the challenges in the present process.

OUR SOLUTION.

Using a purge compound that was developed to work optimally with this type of equipment and materials, we were able to achieve our goals. Cleaning became twice as fast and exceptionally more efficient than it was prior to the introduction of the purge compound technology, and scrap rate fell substantially. Chem-Trend's Ultra Purge™ purging compound also had the benefit of eliminating the risk of damage to the equipment due to its chemical reaction technology. The customer's product quality was vastly improved due to the internal cleanliness of the equipment. Benefits also included significant cost savings from the reduced scrap and greater production efficiency.

HANDPRINT IMPACT

At Chem-Trend, we pride ourselves on our long history of sustainability efforts. However, it is our effect on our customers' processes that provides the greatest impact. It goes beyond our global Footprint; it is our even wider Handprint.

Here, we achieved the following:

- Reduction of material waste due to lowered scrap and more efficient production
- Reduction in part replacements through reduced risk of machinery damage
- Reduction of energy usage by producing more usable product and reducing the need for recycling

Materials Waste Energy

For more information about our thermoplastics capabilities, our innovations, or other stories, visit CHEMTREND.COM