TIF mulching films provide buffer zone relief to growers in the USA

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ABSTRACT

TIF mulch films are coextruded films of Polyethylene containing a thin core layer of EVAL™ or ethylene vinyl alcohol copolymer (EVOH). TIF films are most commonly produced in 7-layer structures where Polyethylene (PE) layers provide mechanical strength and moisture barrier; tie layers provide and adhesive layer between the PE and the EVOH; and EVOH provides the fumigant vapor barrier.

Following hundreds of plot applications, several monitored flux studies, and commercial deployments in hundreds of acres, TIF has been adopted as the leading fumigant emissions mitigation tool in the United States.

Efficacy studies and soil profile research conducted in the recent past have shown that TIF films can contribute to the sustainability of intensive crop agriculture not only by reducing fumigant emissions but also by making rate reduction possible.

Growers in the State of California in particular, have benefited greatly from this barrier technology as the use of TIF provides significant relief from the harsh buffer zones which are otherwise required by the CDPR in the case that lower barrier films are used.

From a product life-cycle point of view, TIF films can also be recycled. This paper will provide an overview of how TIF technology contributes to sustainable fumigation and highlight several successful case studies from around the world.