

TIF Film Technology – The Missing Link in Fruit and Vegetable Production?

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Summary

TIF, standing for “Totally Impermeable Film”, is a tarp technology new to agriculture that represents the current pinnacle of vapor barrier properties. Such films provide excellent containment of fumigant vapors and thus significantly reduce fumigant emissions, which can otherwise lead to off-site drift and possible environmental and/or bystander exposure hazards. TIF, containing EVOH resin, has been proven to be more effective than the previous generation of barrier films, the nylon-based VIFs, or Virtually Impermeable Films. In addition to reducing emissions, TIF enables lower rates of fumigants to achieve the same level of pest control as higher rates applied under less-retentive films. This presentation will summarize some of the key research studies evaluating TIF conducted from 2007 to 2010. Studies includes tomato production in the Mid-Atlantic using DMDS and Iodomethane; strawberry production in California using Pic-Clor 60; under-tarp soil gas concentration comparisons; anaerobic disinfestation systems; and field volatility (a.k.a., flux or emissions) studies demonstrating the highly-retentive properties of TIF and how this technology fits into the ever-changing and increasingly-restrictive federal and state regulations on fumigant usage.