

NIOSH protecting workers in

# Agriculture



*Preventing Tractor Overturn Injuries:  
The New York ROPS Retrofit Social Marketing Intervention*

## The Challenge:

About one-third of fatalities in the agricultural sector result from tractor overturns, yet rollbars on tractors can minimize and prevent overturn injuries. Rollbars (also called Roll-over Protective Structures or ROPS) have been standard on tractors manufactured in the U.S. since 1985, but many older tractors without ROPS are still being used daily. Cost and cultural factors present barriers to retrofitting these older tractors.

## Impact:

In the six months following the NIOSH-funded Northeast Center for Agricultural and Occupational Health's (NEC) social marketing intervention, tractor dealers in the 5 targeted counties sold approximately ten times more rollbars than in the six months prior to the intervention. They also sold roughly eight times as many retrofits as dealers in comparison counties. 40% of farmers who received rebates, however, bought their rollbars directly from the manufacturer, making the dealer numbers a conservative estimate of the intervention's impact.

*To learn more about how they did it and what you can do in your community, please see our resources on the back* ➔

## Approach:

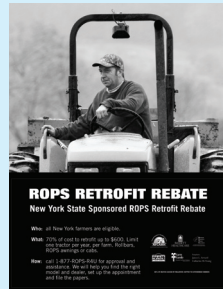
Researchers at NEC studied risk perceptions, barriers, and motivating factors to tractor retrofitting among farmers in New York State. The results guided a social marketing campaign that was rigorously evaluated by implementing different levels of intervention efforts around New York and Pennsylvania and then comparing retrofit sales across different campaign regions.

## Results:

NEC's campaign included a hotline to make retrofitting more convenient and multimedia communications that emphasized advantages of retrofitting. Farmers were offered a 70% rebate on the cost of the rollbar, funded by the New York State Legislature. In the first year, more than 1000 farmers expressed interest, 259 completed the retrofit/rebate process, 80 additional rebates were designated and another 404 were being processed pending additional funding.



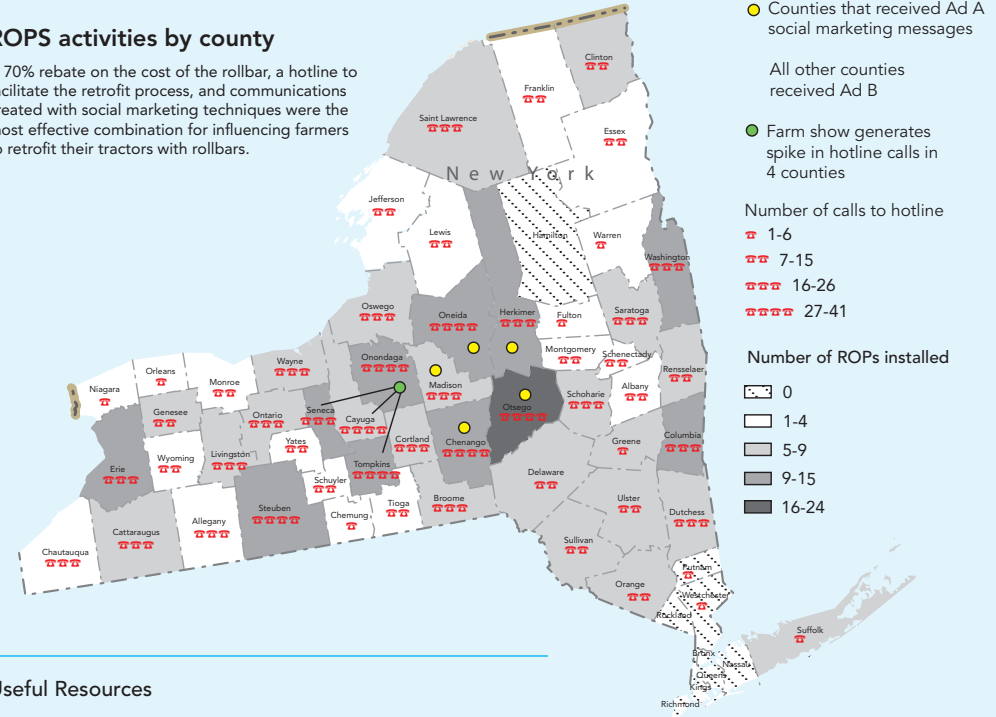
Ad A was created with social marketing techniques that identified protecting the next generation as an important issue for farmers. The ad was distributed through print media in 5 counties (marked in yellow on the map).



Ad B was distributed throughout the state in print media and at the farm show in Syracuse (marked in green on the map). It provides the information in a traditional format.

## ROPS activities by county

A 70% rebate on the cost of the rollbar, a hotline to facilitate the retrofit process, and communications created with social marketing techniques were the most effective combination for influencing farmers to retrofit their tractors with rollbars.



## Useful Resources

New York State ROPS Retrofit Program  
[www.rops4u.com](http://www.rops4u.com)

Northeast Center for Agricultural and Occupational Health  
[www.nycamh.com](http://www.nycamh.com)

NIOSH InSights Web Library  
[www.cdc.gov/niosh/programs/cid/pubs.html](http://www.cdc.gov/niosh/programs/cid/pubs.html)

NIOSH NORA Sector Web Page  
[www.cdc.gov/niosh/nora/councils/agff](http://www.cdc.gov/niosh/nora/councils/agff)

NIOSH Home Page  
[www.cdc.gov/niosh](http://www.cdc.gov/niosh)

## NIOSH Contact Information

To receive NIOSH documents or more information about occupational safety and health topics, contact NIOSH at  
1-800-cdc-info (1-800-232-4636)  
1-888-232-6348 (tty)  
email: [cdcinfo@cdc.gov](mailto:cdcinfo@cdc.gov)  
July, 2008