

Herbicides Help Keep U.S. Chile Producers Competitive with Foreign Suppliers

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New Mexico, eastern Arizona, and far west Texas produce 90% of U.S. chiles. In New Mexico, chiles generate more than \$400 million in economic activity in the state each year. The chile pepper industry in the southwest is facing increasing pressure from foreign competition. Other countries, such as Mexico, have access to lower-cost labor. Reduced production costs are essential for the southwestern chile industry to survive.

Chiles grow slowly at the beginning of the season, giving rapidly growing weeds a competitive advantage. Uncontrolled weeds have been documented to reduce chile yields by up to 76% [1].

Mechanical cultivation can effectively control weeds only between the rows. Weeds in the rows can significantly reduce chile yields. Research has shown that chile yields are reduced 33% when only cultivation is used for weed control [2]. A combination of herbicides is widely used to control a broad spectrum of weeds in chiles. A two-year research study demonstrated that chile yields could be equivalent between fields treated with herbicides and fields that were hand weeded [3]. However, an extra 42-79 hours of hand weeding was required. The hand weeding program would be 5-10 times more costly than the herbicide program.



Chile pepper field in New Mexico: herbicide treated rows (foreground) compared to non-treated rows

References

1. Schroeder, J. 1992. Oxyfluorfen for directed postmergence weed control in chile peppers. *Weed Technology*. October-December.
2. New Mexico Department of Agriculture. 2000. *Emergency Exemption Application: Use of Oxyfluorfen on Chile Peppers for Weed Control*.
3. Schroeder, J. and J. Libben. 1994. *Herbicide Influence on Yield, Quality, and Cost of Managing Weeds in Chile Peppers*. Western Region Pesticide Impact Assessment Program Progress Report, March-November.