



MUVE Section Symposium: Engaging people from diverse fields in urban IPM programs

Breaking the Language Barrier in IPM Programs

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Production and maintenance of ornamental plants is labor intensive

- Manual propagation, plant potting and repotting, watering, pruning, spacing, weeding, and packaging
- **Avg. US floriculture grower employs 15.5 workers**
- Range between 2.1 - 51.6 based on size and sales volume
- **More than 240,000 workers in US floriculture industry**





Workforce Demographics

- In Texas and other producing states, most field workers are Hispanic (up to 95%)
- Most have not received training in plant production and protection
- 65% no high school, 18% no 6th grade, 7% 1 year or less of formal education



Educational programs are needed in Spanish that take into account

- Diversity in educational background of participants
- Cultural differences in learning, attitudes
- Differences in language use due to country of origin, etc.





Workforce Education

Armed with basic knowledge, field workers are in the position to:

- 1. Understand their role in successful implementation of IPM**
- 2. Actively participate in sanitation, pest detection and monitoring practices**
- 3. Directly contribute in efforts to increase profitability and reduce risks**



Taller MIP- IPM Workshop

- Education program for Hispanic and field workers and supervisors**
- Sponsored by industry and leading growers**
- 5, 1-2 hour modules to increase knowledge and skills**
- IPM, plant health, biology of pests/ pathogens, pesticide management, integration of tactics**
- Train the trainer**





Taller MIP- IPM Workshop

- **Informal classroom setting and field demonstration of basic concepts**
- **Must include basic information on plant requirements and growing practices**
- **Programs include social time (lunch provided)**
- **Emphasis on personal growth and professional development, team building**



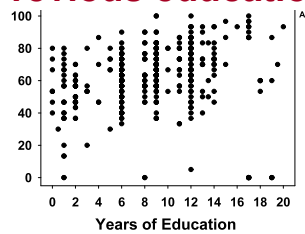


Impact:

- Goal is to reduce plant losses/ costs due to pests/diseases
- Since 2005 approximately 400 workers have participated, 70 have completed the 5- module program
- 2007 Southern Region-IPM grant to develop multimedia educational products in Spanish



Previous education had no impact on test scores



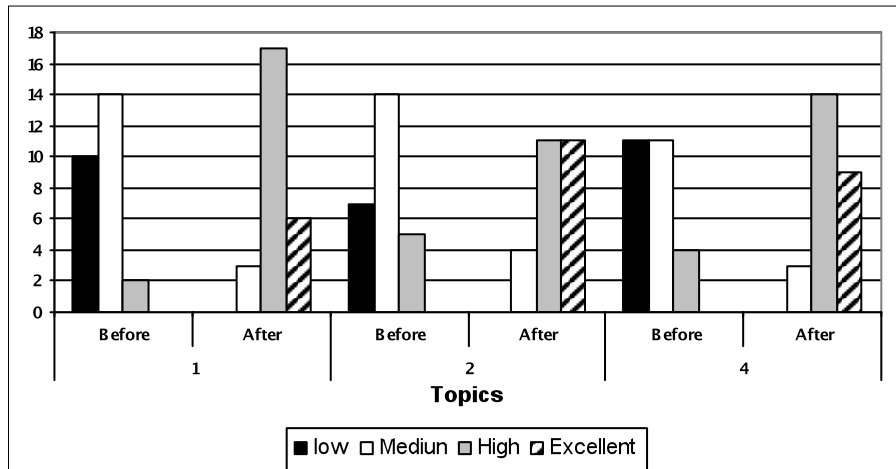
Scores not associated with years of experience



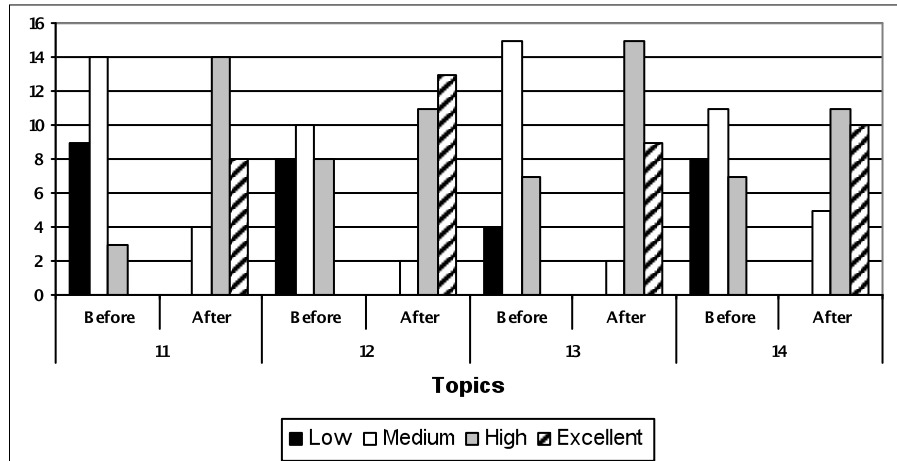
Figure 1. Relationship between test scores and years of education (A) or years of experience (B) for 25 Hispanic field workers receiving "Taller MIP" training.



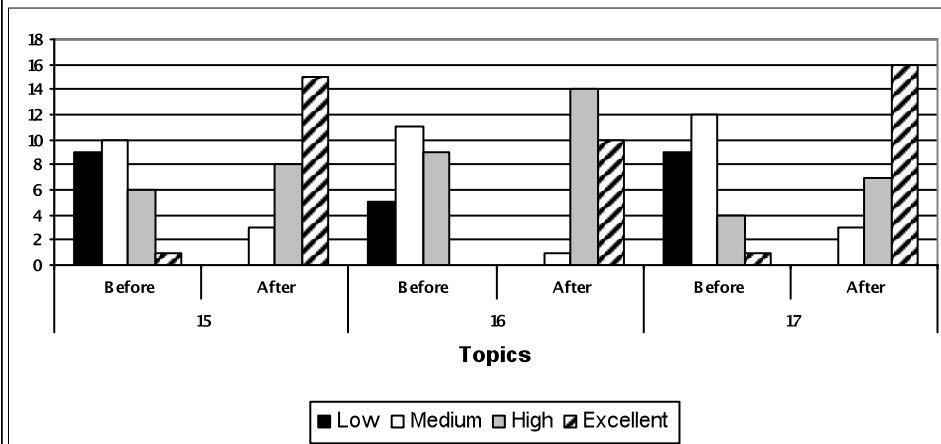
Level of Understanding of Basic IPM Topics Before and After the Session



Level of Understanding of Pesticide Management Topics Before and After the Session



Level of Understanding of Disease Management Topics Before and After the Session



* At Hines Hort. TX, percentage with high to excellent understanding increased from 49% to 90%; average level from 2.47 to 3.48; n=34





Summary

- Bilingual workforce education program established in 2005
- Designed to address lack of educational resources on IPM for entry-level workers
- Aim is to facilitate IPM implementation by empowering workers
- Outcomes to date indicate significant impact and great potential



Acknowledgements

- Participating Texas growers: Hines Horticulture Inc. Color Spot Nurseries, Seville Farms, Green Valley Growers, Ellison's GH.
- USDA S-RIPM Program
- Syngenta Crop Protection
- University of Florida, North Carolina State University

