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## On Multiplicative Structure in Quasi-Newton Methods for Nonlinear Equations

Bericht des Agriculture and Human Values

### Kurzfassung

One of the major adjustments brought on by the North American Free Trade Agreement (NAFTA) was a change in the relationship between Mexican agricultural support institutions and the small-scale agricultural sector. Post-NAFTA restructuring programs sought to correct previous inefficiencies in this sector, but they have also had the effect of marginalizing the producers who steward and manage the country's reserve of maize (*Zea mays*) genetic diversity. Framed by research suggesting that certain maize varieties in a rain-fed farming region in southern Sonora are in danger of loss due chiefly to long-term drought, this article explores the ramifications of post-NAFTA agricultural policies for in situ maize diversity conservation. Qualitative methods, including semi-structured interviews with agricultural support institutions and participant observation with farmers, were used to gather data on dryland farmers' access to research and extension, as well as possibilities for collective action. In southern Sonora, agricultural support is oriented primarily toward high-tech production, and there are structural barriers to small-scale farmers' access to research and extension institutions. Further, collective action around agriculture is limited. These circumstances represent significant limitations to farmers' options for accessing new techniques which might help maintain maize diversity in the context of economic and environmental change.