

World View of No-till Farming System and Cover Crop Management

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Derpsch worked from 1966 to 2001 for GTZ, German Agency for Technical Cooperation. He is now a consultant. He started research in no-tillage in April 1971 in Brazil and was one of the first to research no-tillage in Latin America. He worked closely together with pioneer no-till farmer from Brazil, Herbert Bartz, who started no-tilling in 1972 and now is the President of the Brazilian Federation of No-till Farmers Associations, FEBRAPDP. Derpsch worked at the Research Institute of Paraná, IAPAR, in Brazil from 1977 to 1984 with R & D of the no-tillage system (tillage, cover crops, crop rotations).

From 1993 to 2001, he was senior advisor to the MAG – GTZ Soil Conservation Project, which was a joint venture between the Ministry of Agriculture and Livestock of Paraguay and GTZ. He has working experience in Paraguay, Brazil, Argentina, Bolivia, Chile, Honduras, Colombia, Somalia and Germany. Derpsch has been recognized with several awards by the Ministry of Agriculture of Paraguay and the Paraguayan Federation of No-till Farmers. After the Soil Conservation Project ended in 2001, he left GTZ and decided to stay in Asunción, Paraguay, where he has been based since 1988. Rolf is married to Anke Derpsch, German with one daughter, Susanne - she married last year. This year she finished her studies of Architecture in Germany and started working. She and her husband live in Siegen (near Frankfurt) Germany

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Introduction – World wide, no-tillage has experienced an impressive growth in the last fifteen years. From about 5 million ha in 1987 (80% of which in the USA), no-tillage grew to 64 million ha in 2001/02. Biggest growth rates have taken place in Latin America where 45% of world wide No-tillage is practiced today. 39% is practiced in North America (USA and Canada), 14% in Australia and only 2% in the rest of the world (Europe, Asia and Africa). There are several reasons why no-tillage is booming in Latin America. The understanding that no-tillage is a holistic system that includes green manure cover crops and crop rotations is an important reason. While in some regions of the world farmers concentrate on avoiding tillage, Latin American farmers have understood that adequate production and management of crop residues are key issues in the No-tillage system. Farmer to farmer extension (no secrets) has been an important reason for fast growth and also the fact that in Latin America in general there are no subsidies to agriculture. Research with green manure cover crops (gmcc's) has played a key role in reducing herbicide need and costs in the No-tillage system. GMCC's have had a positive residual fertilizer effect on cash crops, reducing the need for fertilizer inputs. Biological pest control has also had an influence in reducing production costs.

I. Advances of No-till farming in the world

II. Why No-tillage is really booming in Latin America

III. Research with green manure cover crops and crop rotations in South America

IV. Reducing inputs in No-tillage farming systems

- Reducing weed infestation with cover crops

- Biological pest control

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