

Project title:	Managing pesticides safety risks in high value chains
1st institution:	INRA Supagro Montpellier France
2nd institution:	Not yet identified
Associate institution:	Depending on the candidate country; among possible partners: USP Brazil, UTalca Chile
Key words: safety, pesticides, fruits and vegetables, supply chain, risk management	
<p>Project description:</p> <p>Fresh produce pesticides safety risks have grown during the last twenty years, into a major concern of north European consumers and governments. Although developing countries' consumers are not yet very demanding as regards to fresh produce safety, risks are significant and increasingly taken into consideration by exporting countries' local governments and modern food chain operators.</p> <p>Product standards (Maximum Residue Limits) and more recently process standards (Good Agricultural Practices, GAP) are one of the most efficient solutions to control and reduce the level of pesticides on fresh produce. Defined by a variety of public and private actors, they are implemented and controlled at different levels of the chain by public and private actors as well. In brief, the organization of production and marketing chains to comply with customers' safety requirements has turned into a key issue for the success of developing countries' fresh produce export and local markets.</p> <p>Safety requirements widely vary between importing countries and companies. They sometimes may conflict between each other, which increases the complexity of the safety management practices of world-wide exporting companies. As a result of the complexity and stringency of customers' safety requirements, exporters/shippers are more and more concerned with safety risk management at the production level and increasingly negotiate with farmers production contracts that allocate decision rights regarding IPM practices (like more rational pesticides spraying or alternative chemical practices). Special attention may be paid also to collective action issues when small or medium size farmers manage to organize collectively to market and export their products.</p> <p>The PhD student will expand on safety control issues in the fruit and vegetables sector of his home country and give insights into how marketing chains of his country organize to comply with private and public national and international safety standards and thus get access to export and local modern markets. He will focus in particular on the share of the safety and commercial risks between the exporter and affiliated farmers or collective action issues within farmer marketing groups, either traditional cooperatives or modern clubs.</p>	
<p>Key research questions:</p> <p>Identify and analyse in export or domestic fresh produce high value chains:</p> <ul style="list-style-type: none"> • the diversity of public and private safety requirements of local and key international buyers and their impact on producers and exporters/shippers' marketing strategies • the design and functioning of individual or collective management schemes implemented by growers and exporters/shippers to comply with public and private safety standards, with a focus on <ul style="list-style-type: none"> ○ the governance of technical advising and safety control within farmer-shipper alliances or producers' organizations ○ the share of the risk and the resulting pay-offs in a supply chain when complying with demanding safety standards; 	

- the institutional and economic conditions for small farmers inclusion in individual or collective safety risk management schemes;
- the impact of such governance structure on i) safety performance measured for instance in terms of pesticides use or pesticides residues on the product; ii) economic performance of both farmers and shipping companies

Required competences:

Master in Economics, Business or Agriculture Economics

University background or consistent experience in agronomics

Interest for primary data collection and field observations

Econometrics basic skills and hopefully some experience in econometrics