## **Table of Contents**

Ta	ble of	ContentsI				
Pre	eface					
Ac	knowl	ledgementsIV				
1	General introduction1					
	1.1	Pesticide fate studies in Thailand2				
	1.2	Preferential flow				
	1.3	Transport of contaminants by preferential flow4				
1.3.1 Vertical						
1.3.2 Lateral		2 Lateral				
	1.4	Pesticide transport modeling on different scales7				
2	Obje	ectives and outline				
3	Final discussion14					
	3.1	Comparing plot-scale- and field-scale studies14				
	3.2	The benefit of modeling16				
4	Final conclusion1					
	4.1	Key results and relevant processes				
	4.2	Applicability and transferability of the modeling approach				
	4.3	Implementation of research results in mitigation strategies				
	4.3.	1 Mitigation of spray drift				
	4.3.	2 Mitigation of surface runoff				
4.3.3		3 Mitigation of preferential interflow22				

5	Summary
6	Zusammenfassung
7	Literature cited
8	Appendix
	Publication 1: Micro-trench Experiments on Interflow and Lateral Pesticide Transport in
	a Sloped Soil in Northern Thailand
	Publication 2: Loss of pesticides from a litchi orchard to an adjacent stream in northern
	Thailand
	Publication 3: Simulating pesticide transport from a sloped tropical soil to an adjacent
	stream
C	urriculum vitae