

# Crop Insurance Purchase Decisions of Small Scale Irrigation Farmers in Chiang Mai, Northern Thailand

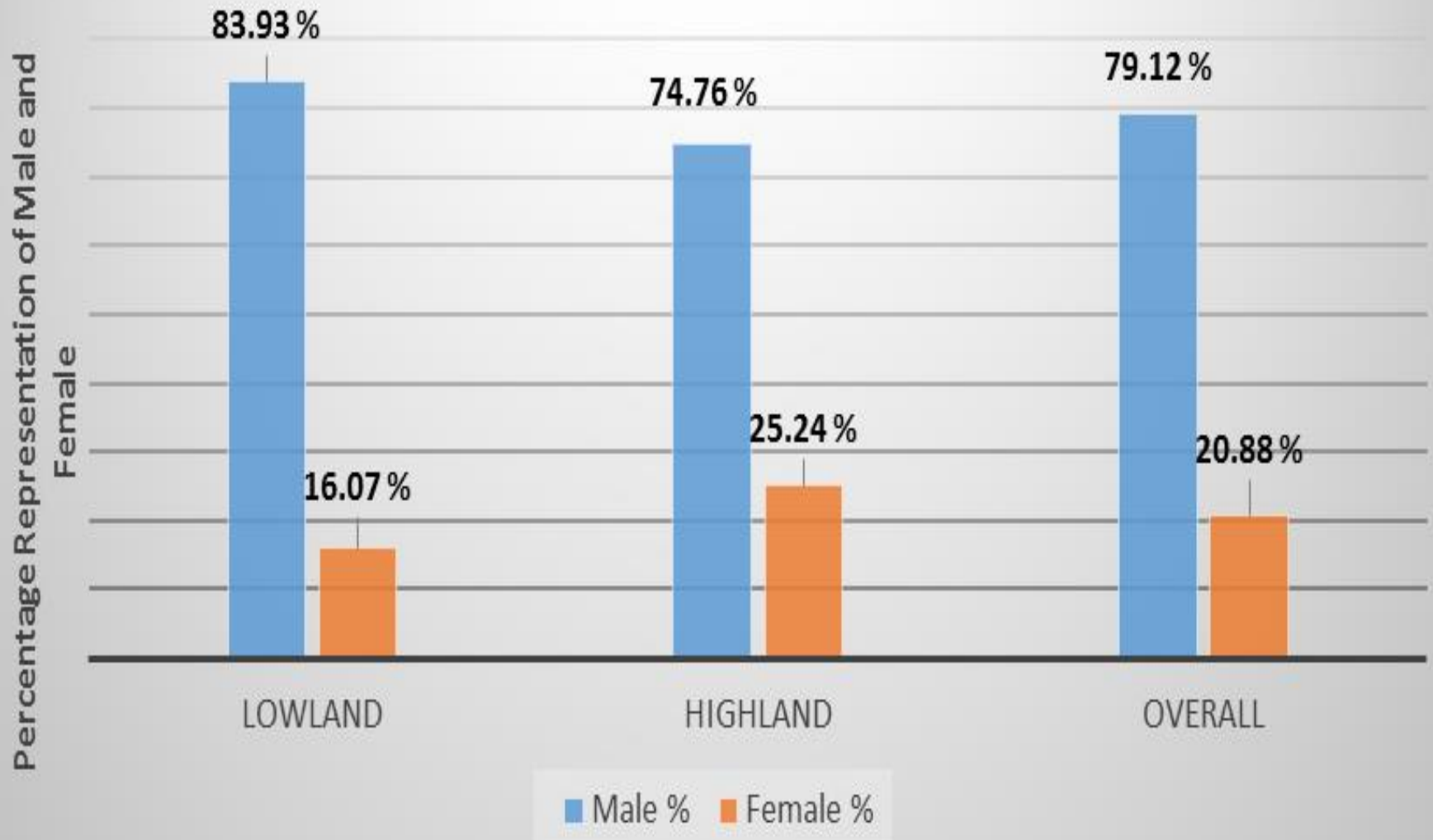
Juthathip Chalermphol, Pathairat Pastpipatkul  
Chiang Mai University



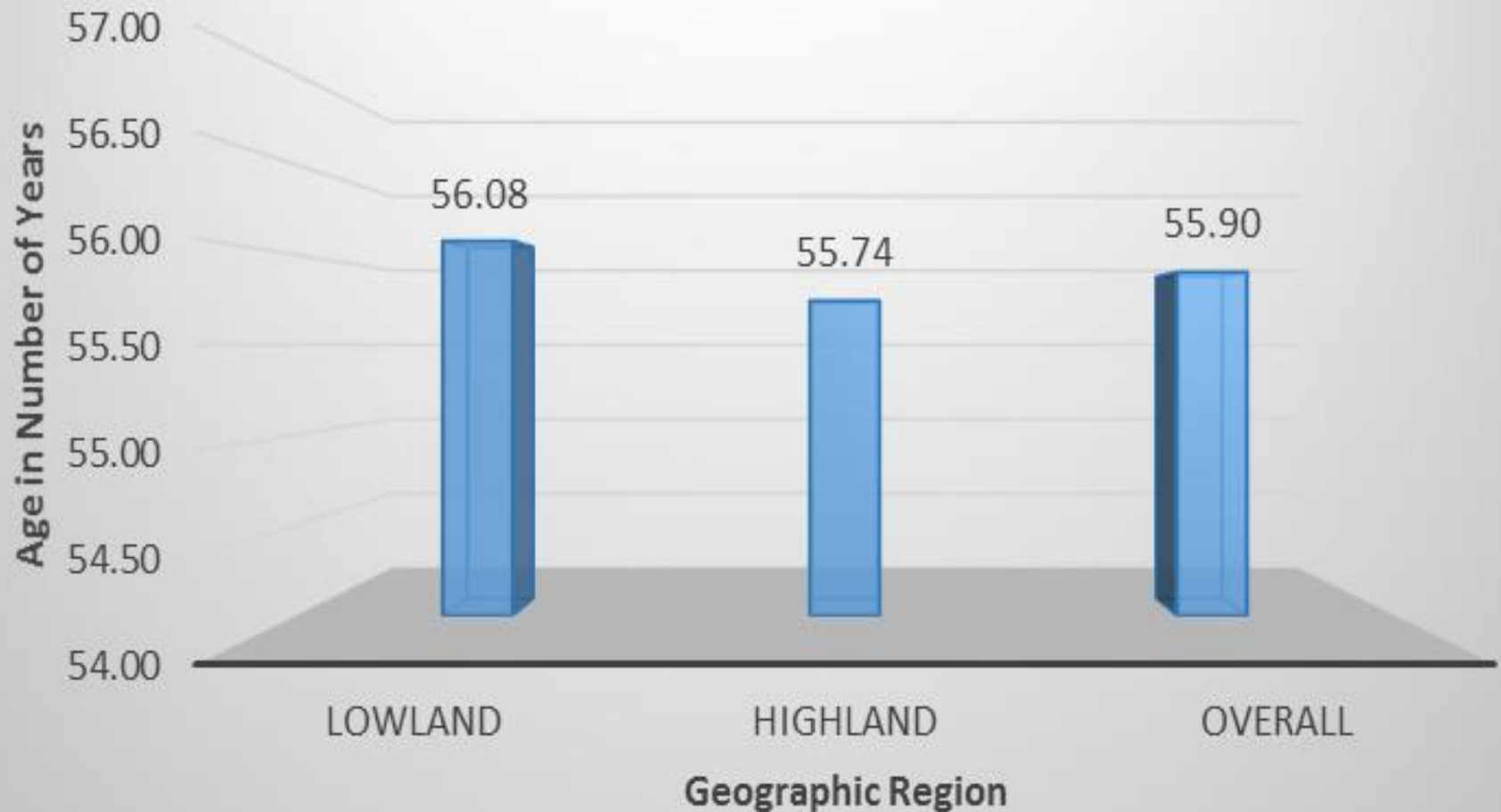
To investigate the factors which affect agriculture insurance decisions and to consider the characteristics of farmers who have high probability of purchasing crop insurance of small scale irrigation farmers in Chiang Mai, Northern Thailand.



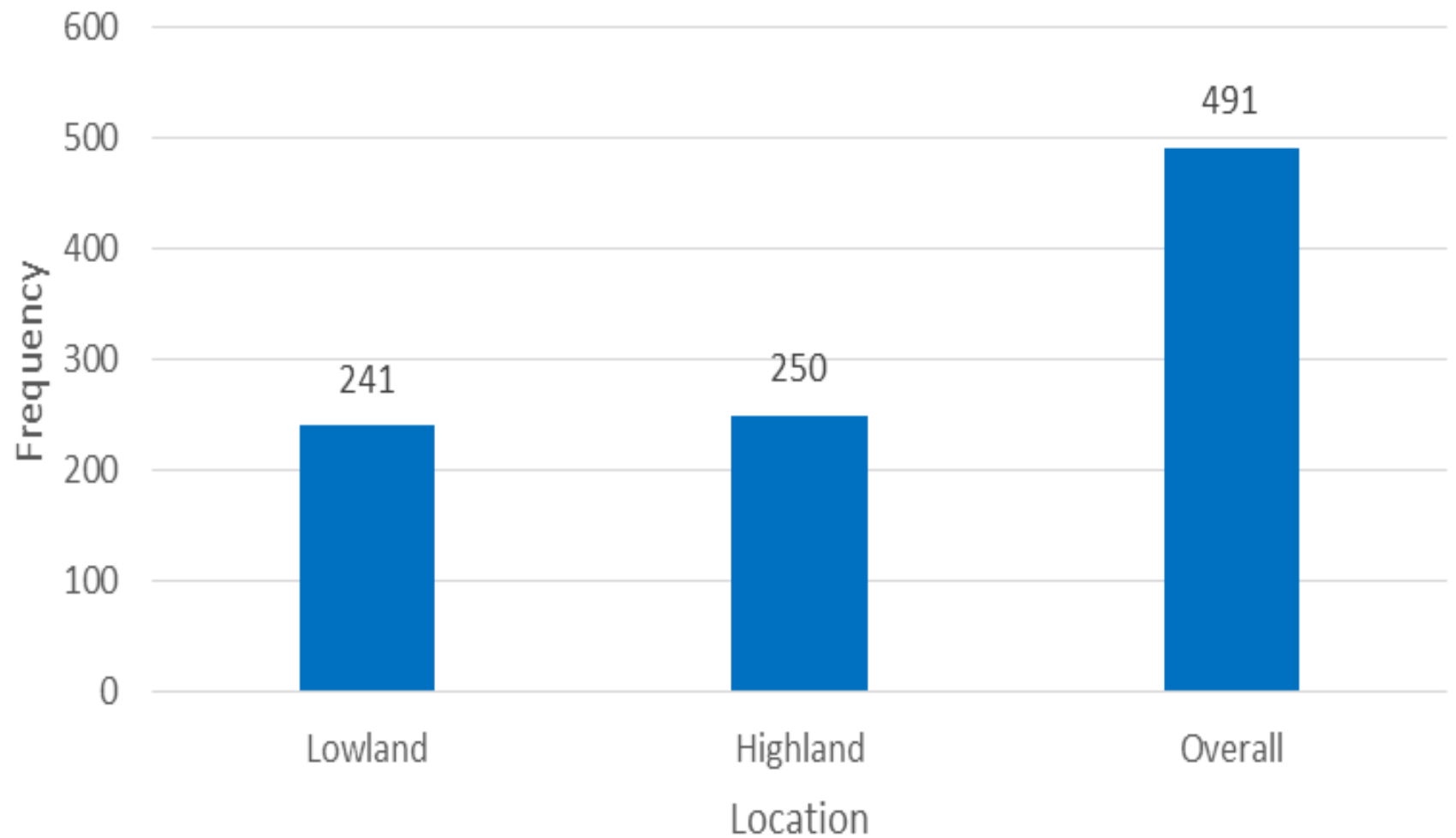
# Percentage Representation of Gender



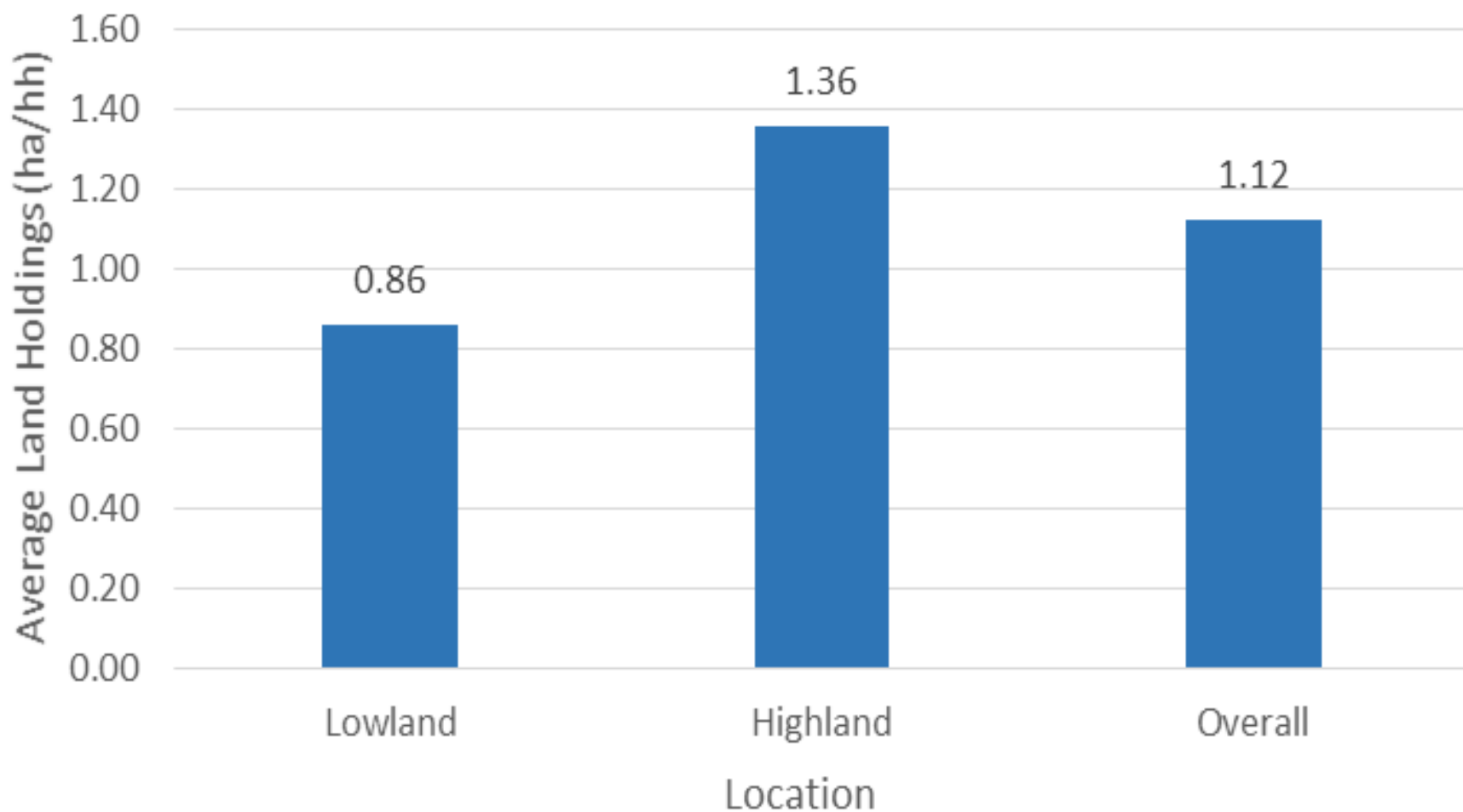
# Average Age of the Respondents



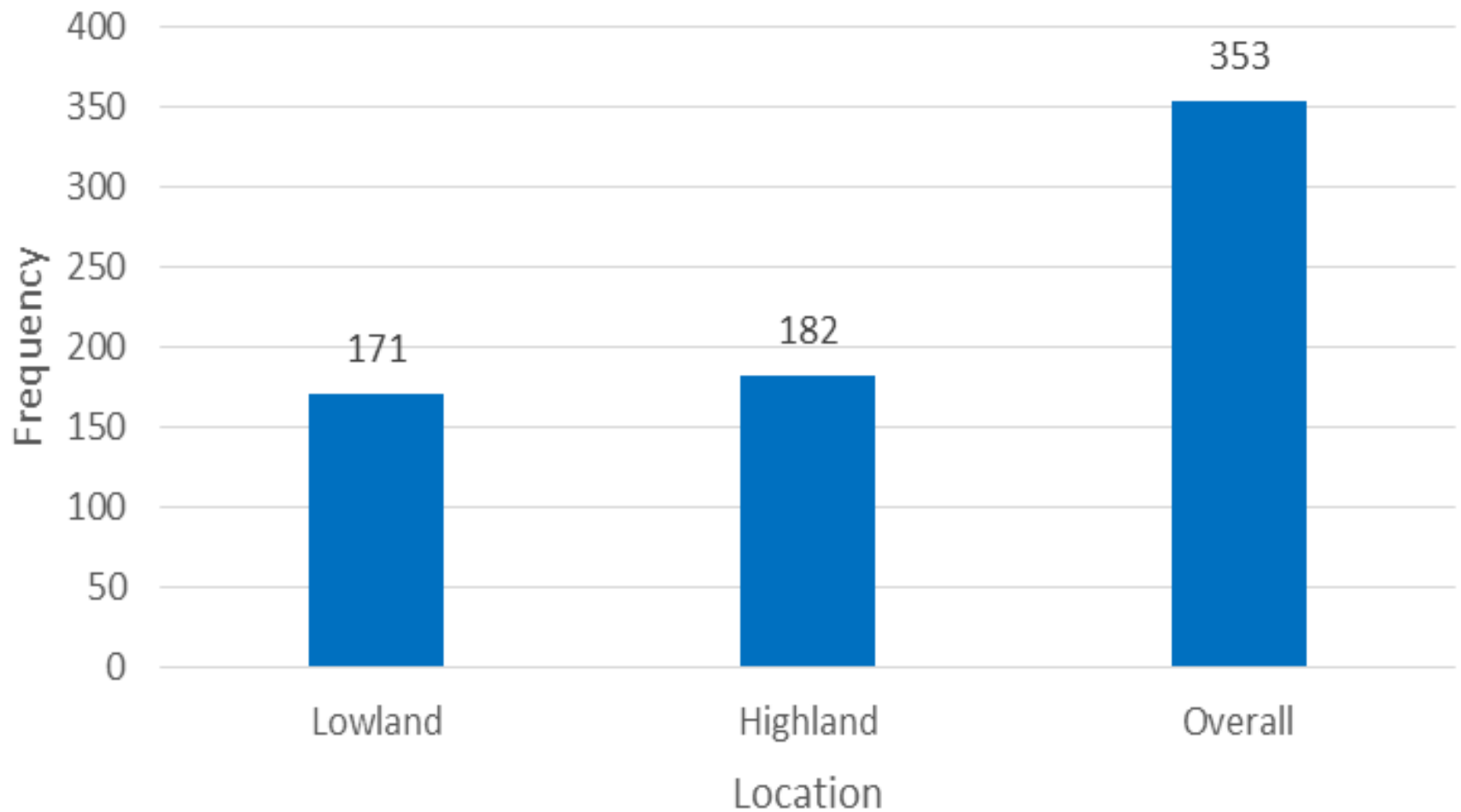
## Irrigated Farming as Main Income Source



## Average Land Holdings (Hectares)

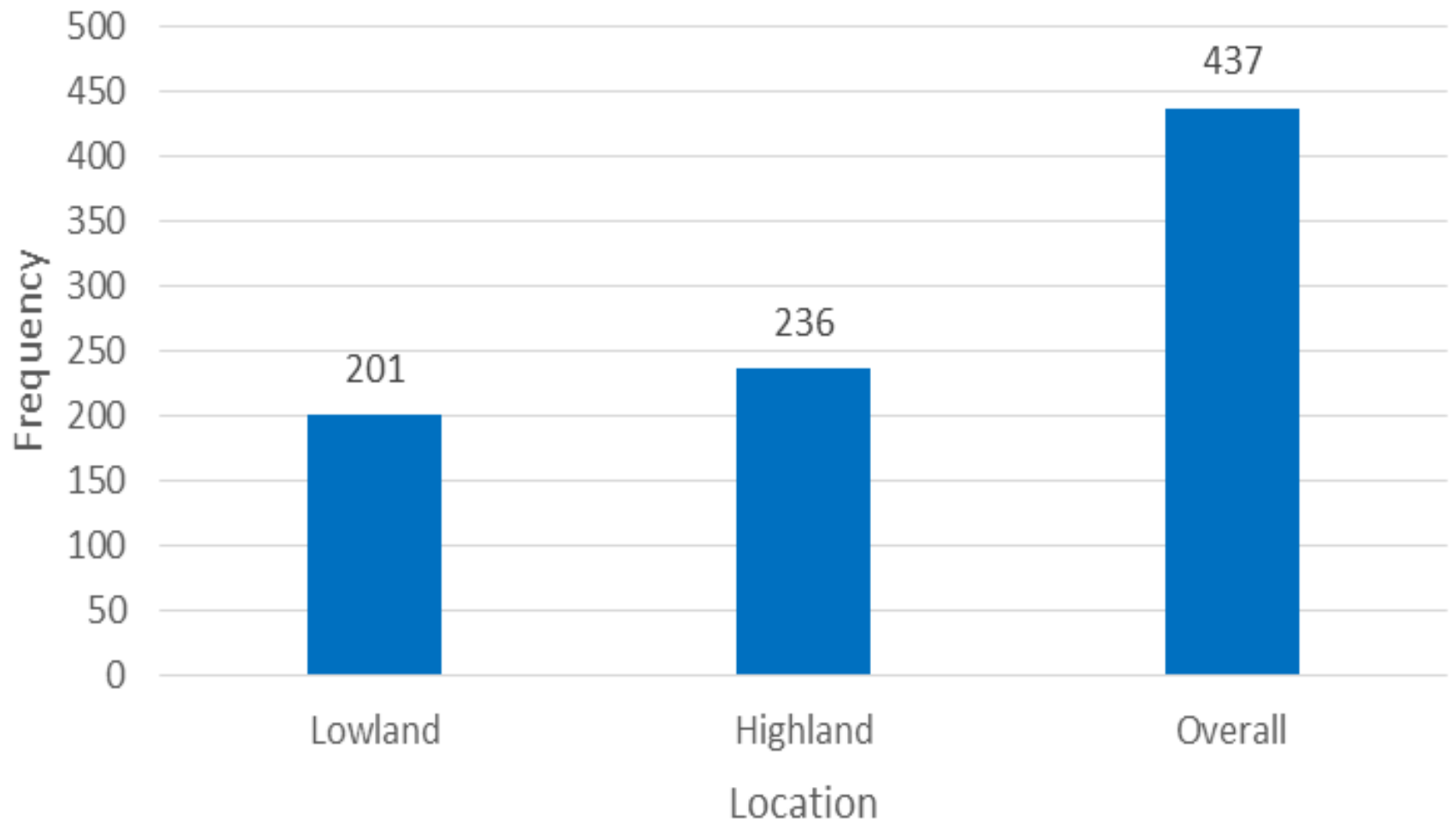


## Frequency of Respondents using Insurance

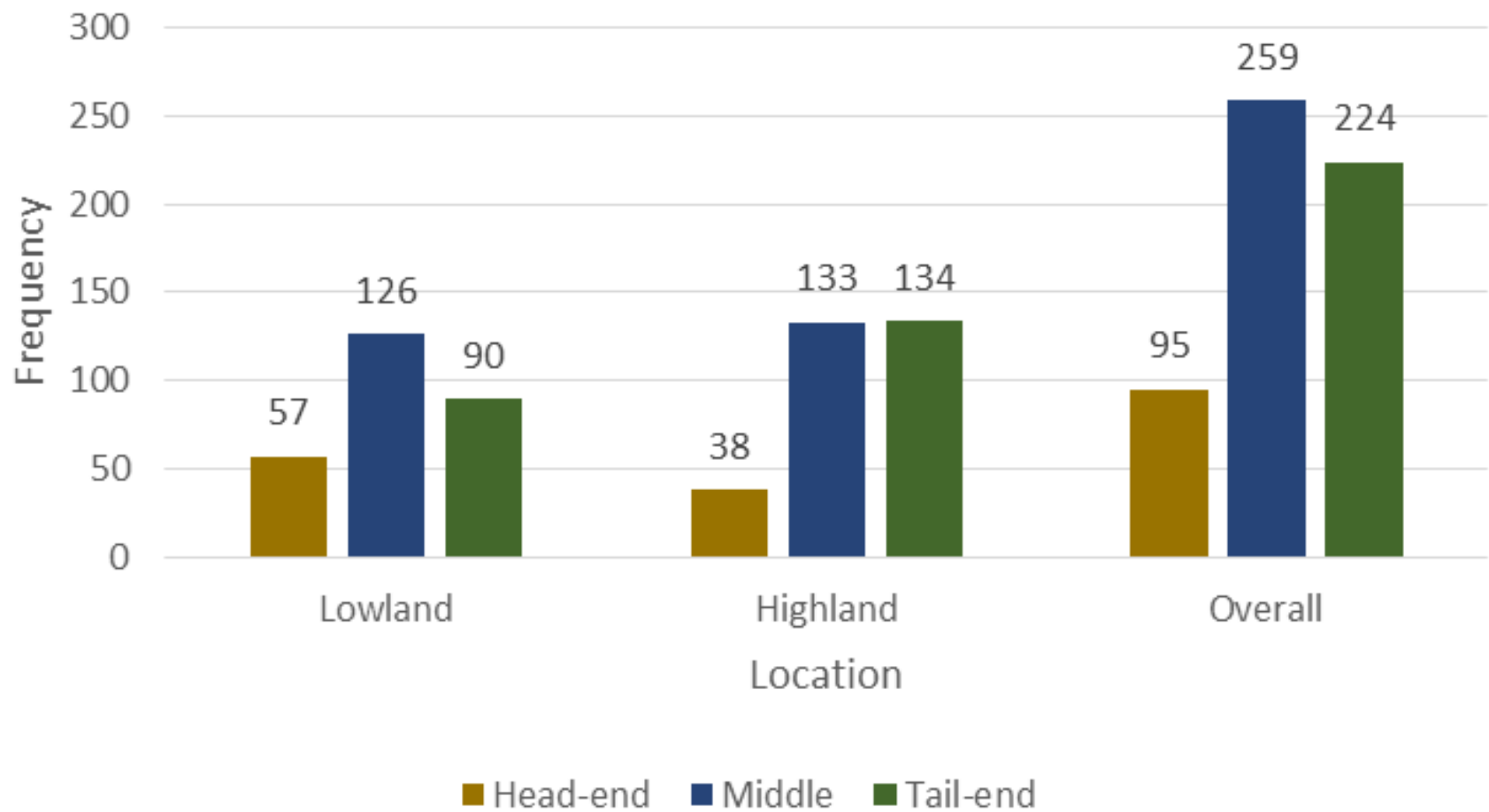




## Frequency of Respondents using Credit



## Position of Land in the Irrigation System



# Sample Descriptive Statistics for Variables Description

	Frequency	Percent		
Insurance (Agriculture)	18	0.03		
Insurance (Others)	571	99.97		
<b>Independent variables</b>				
Gender (Male)	466	79.12		
Gender (Female)	123	20.88		
Age (under 20 years old)	1	0.17		
Age (21-30 years old)	11	1.87		
Age (31-40 years old)	41	6.96		
Age (41-50 years old)	115	19.52		
Age (51-60 years old)	228	38.71		
Age (61-70 years old)	144	24.45		
Age (older than 71 years old)	49	0.85		
<b>The location of farm in an irrigation system</b>				
Head location	95	16.44		
Middle location	259	44.81		
Tail location	224	38.75		
	Mean	Std. dev.	Min	Max
Agriculture Income (\$)	3,060.32	3,639.98	0	2,7158
Fuel expense (\$)	36.34	37.12	0	193.99

## Probit regression results: independent variable: 'purchase agriculturist insurance decision'

Variable	Estimate coefficient	SD	P=value
Constant	-2.96444	0.38606	0.000
Agriculture income	0.000039**	0.000019	0.037
Years of living in community	0.014704**	0.006172	0.017
Head location	0.605322**	0.252714	0.017
Middle location	0.396037*	0.216605	0.067
Fuel expense	0.004465	0.386066	0.000

Note: \*\* and \* represents significance at 5% and 10% respectively



Five variables involved in agriculture insurance purchases:

- ✓ agriculture income
- ✓ years of residence in the community
- ✓ headwater location
- ✓ middle water location
- ✓ fuel expense

- ❑ Farmers who are more concerned by the possible effects of agriculture risks are likely to reduce their risk through crop insurance.
- ❑ If farmers live in the community for a long time, and thus gain local experience, they are more possible to purchase agriculture insurance. They are likely to understand the scale of risk to farmers in their community.
- ❑ Location of farm in an irrigation system has significance. Farmers have farms located in head or middle locations of an agriculture system tend to receive more water from an irrigation system. They thus have better overall performance of agriculture and farm income than tail-end farmers.
- ❑ Fuel expense also has an effect on crop insurance purchase. The price of fuel can fluctuate greatly. In order to control financial risk, they are more likely to purchase agriculture insurance.