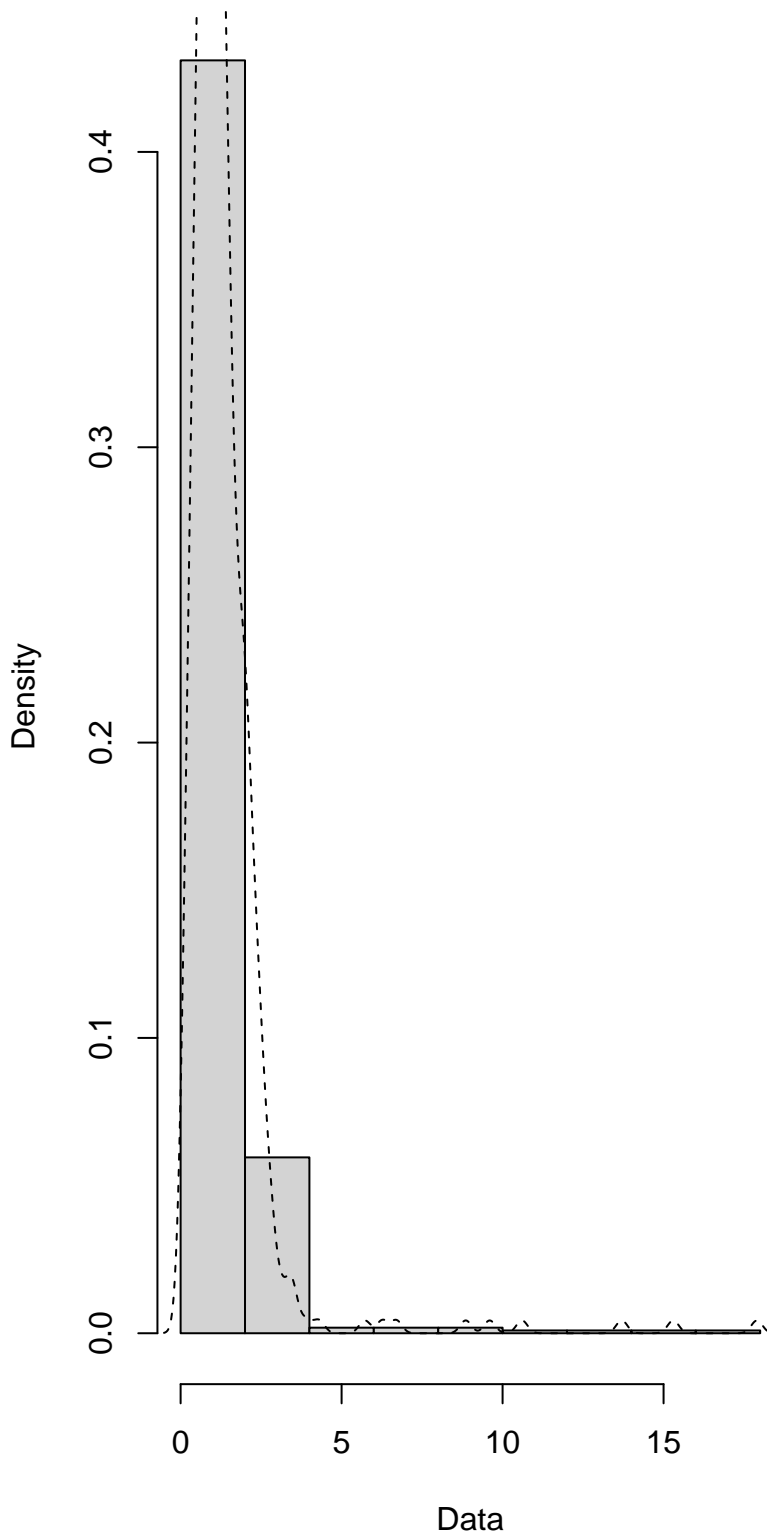


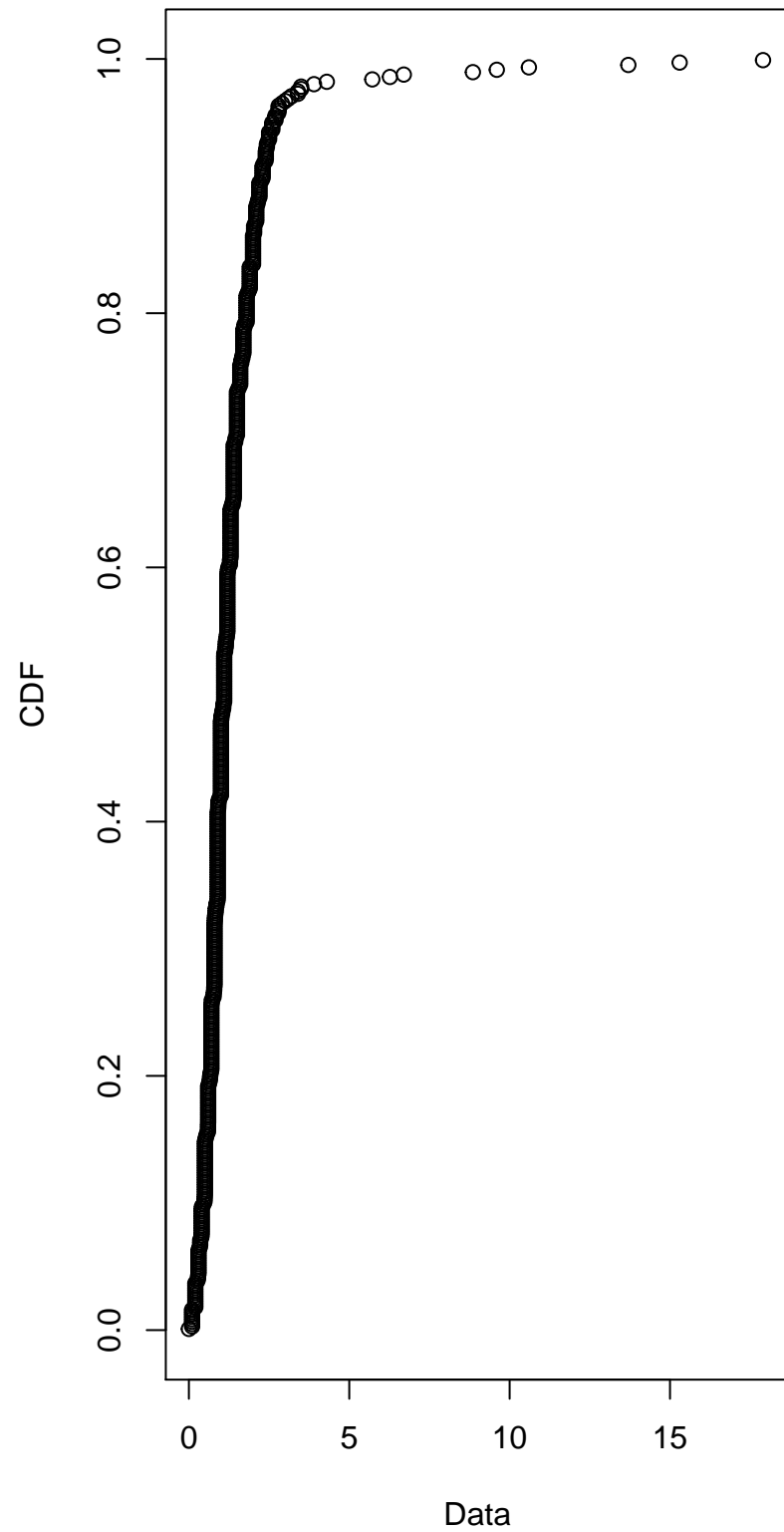
# Summary of the variable

Min.	1st Qu.	Median	Mean	3rd Qu.	Max.	NA's
0.000	0.700	1.100	1.355	1.600	17.900	86

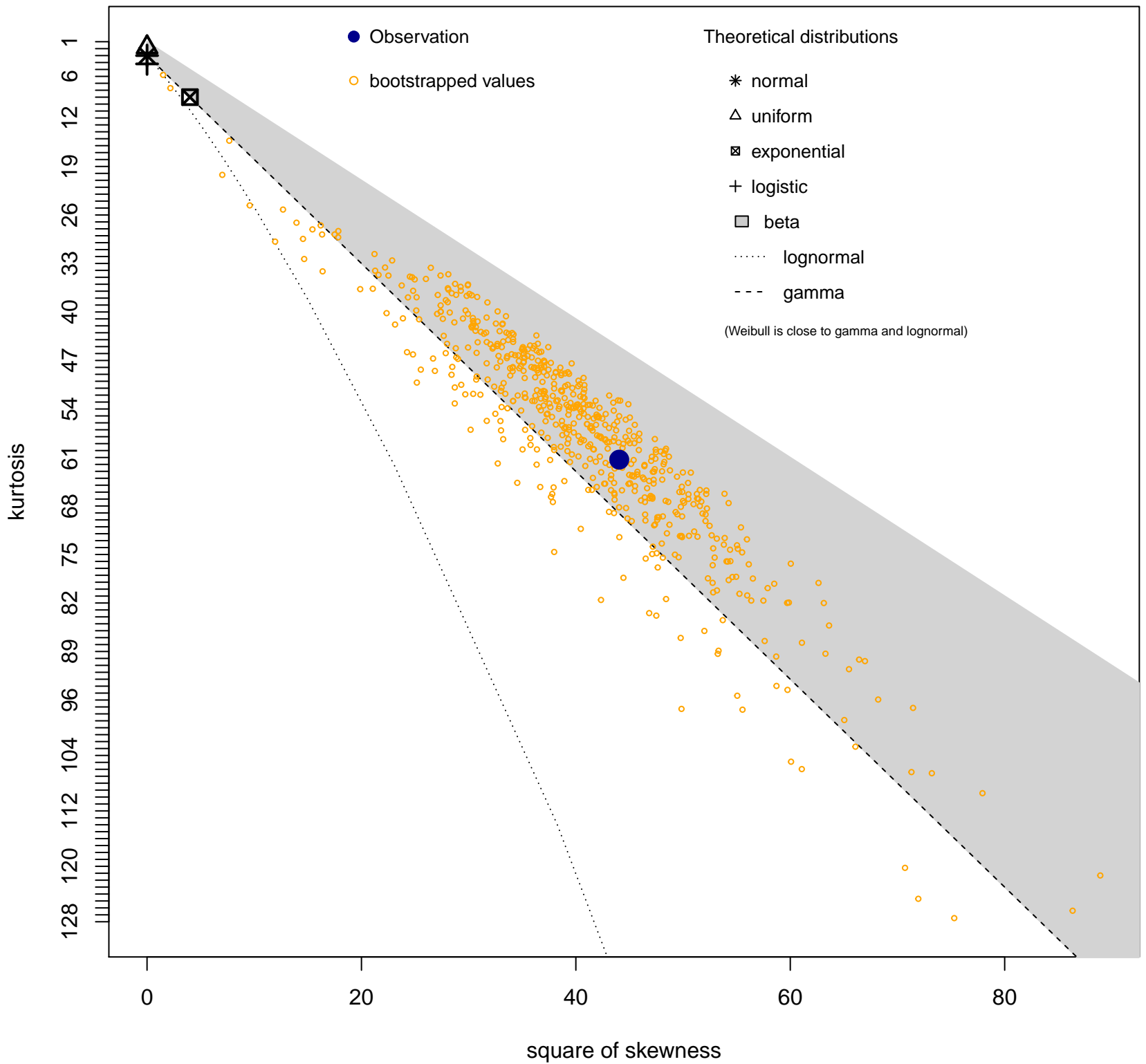
**Empirical density**



**Cumulative distribution**



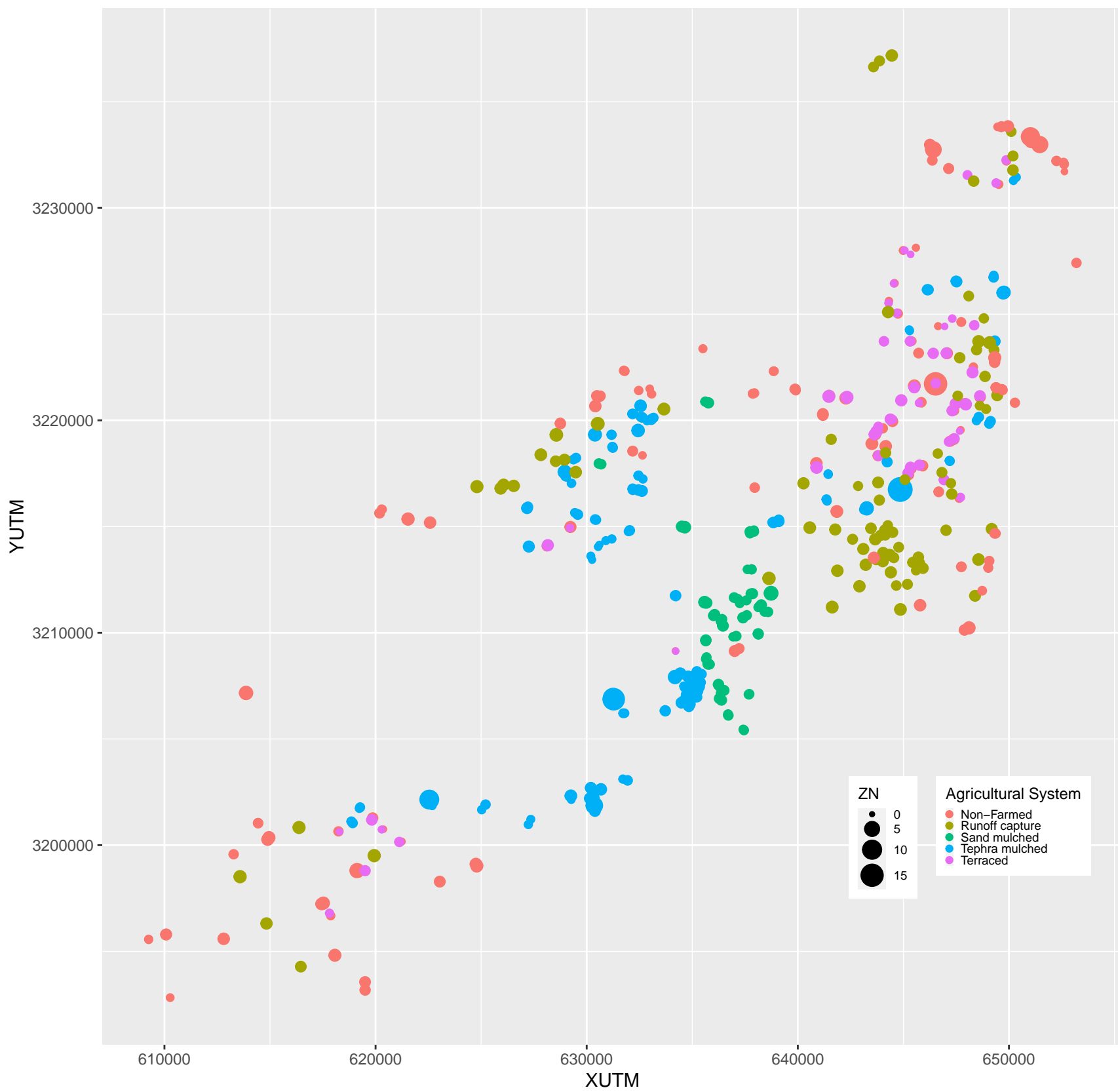
# Cullen and Frey graph



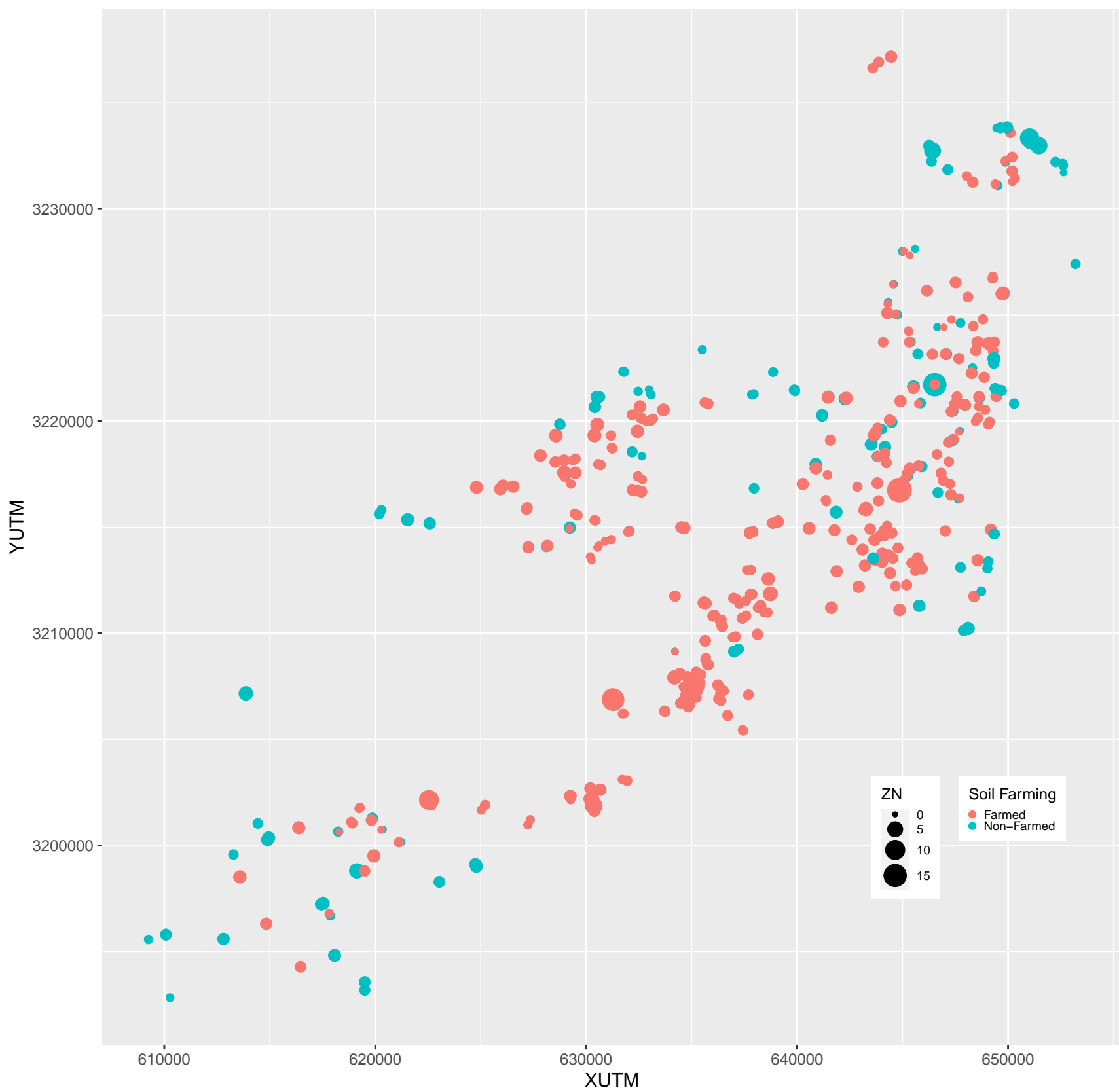
# Shapiro–Wilk test for normality

Shapiro–Wilk normality test
data: dataframe[, variable_chr]
W = 0.48012, p-value < 2.2e-16

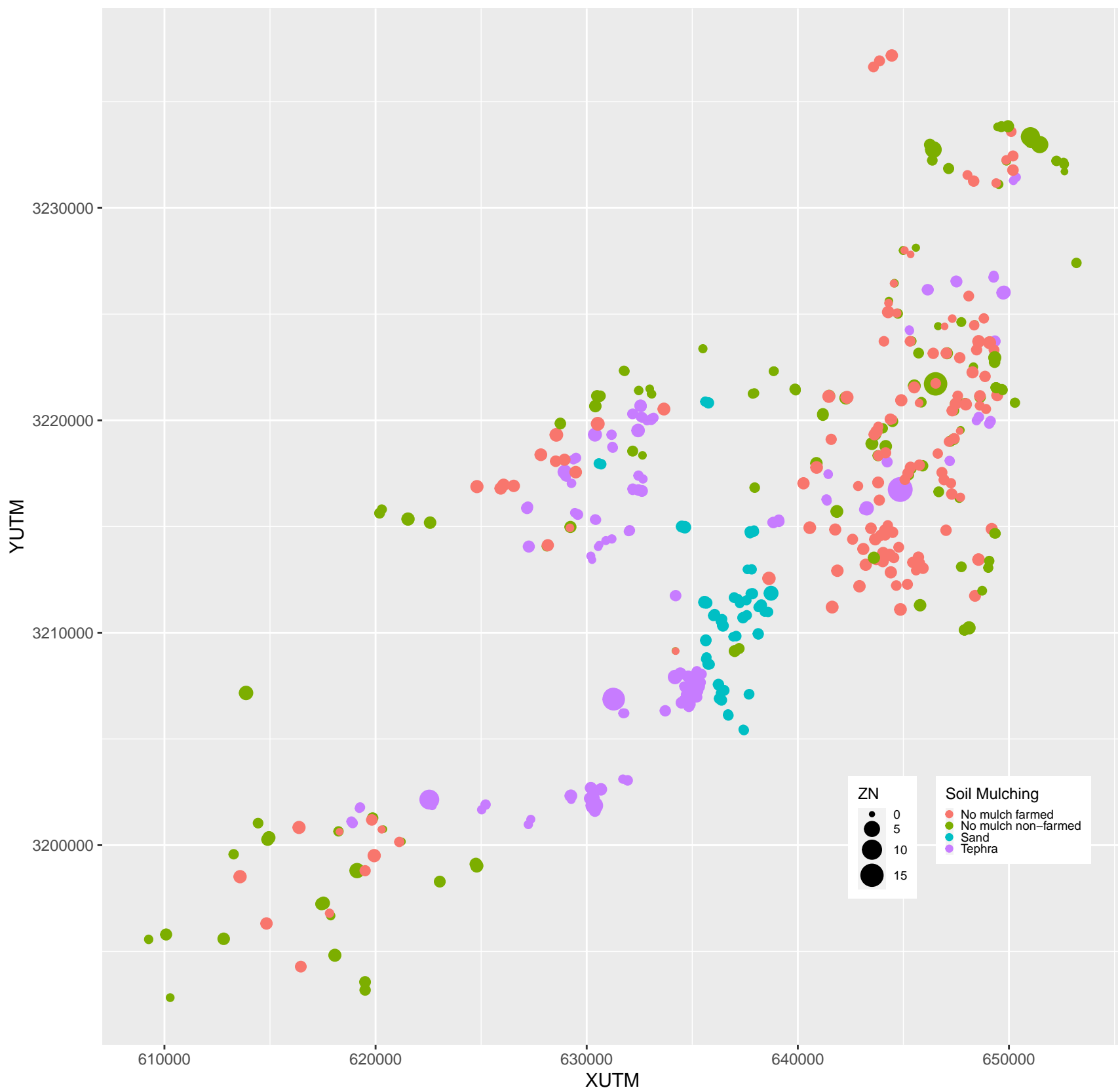
ZN according to location and Agricultural System



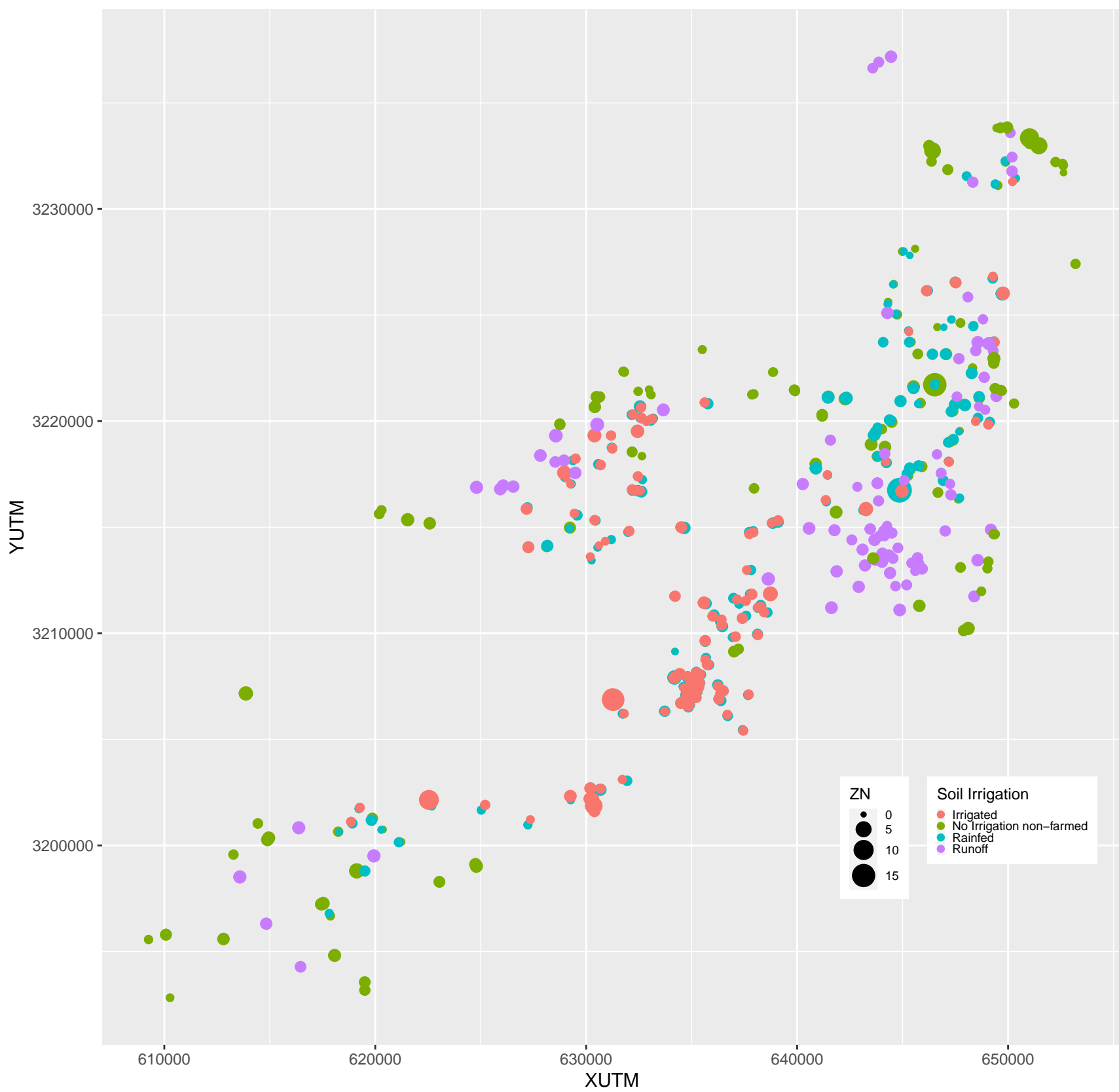
ZN according to location and Soil Farming



ZN according to location and Soil Mulching

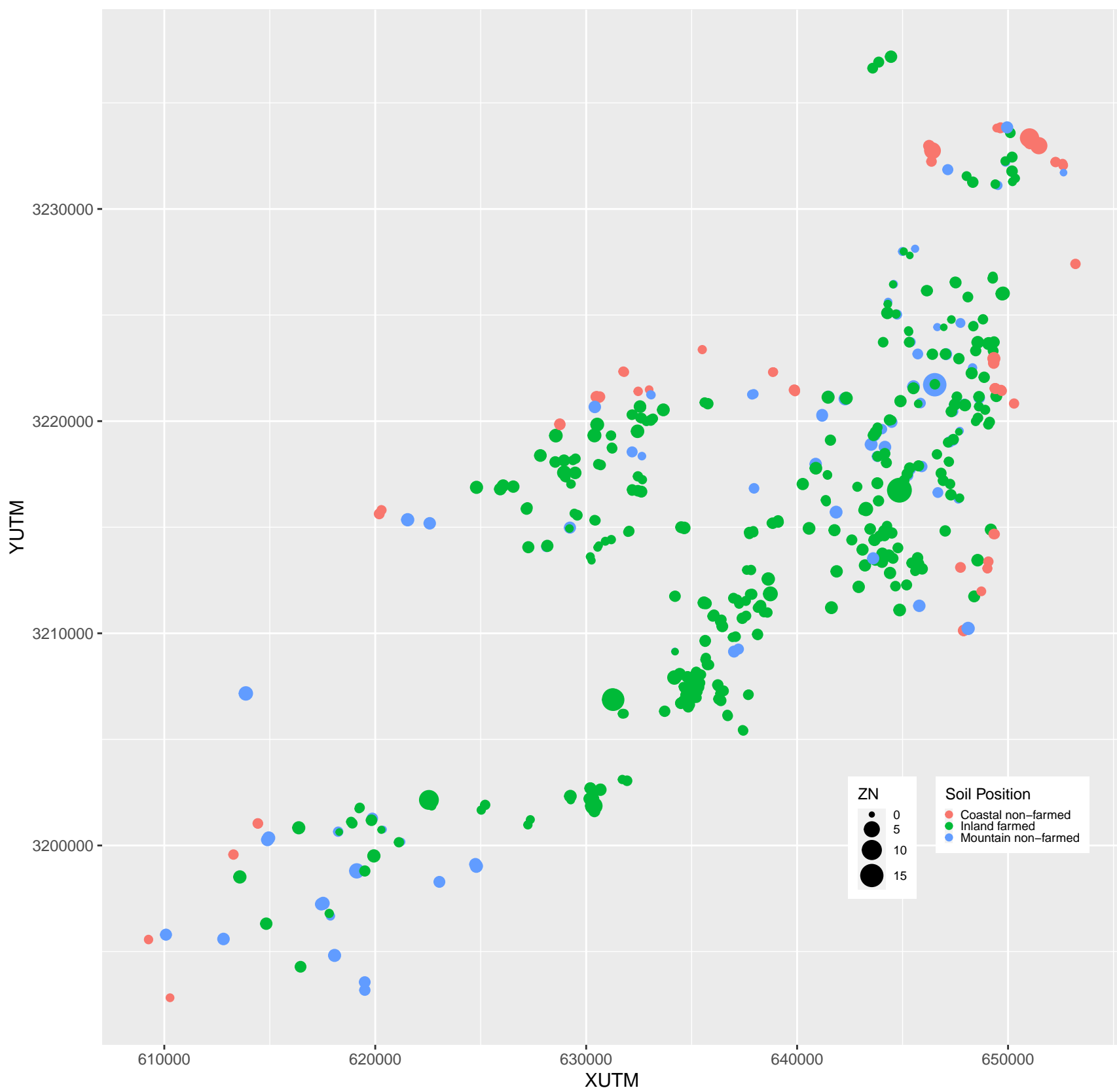


ZN according to location and Soil Irrigation

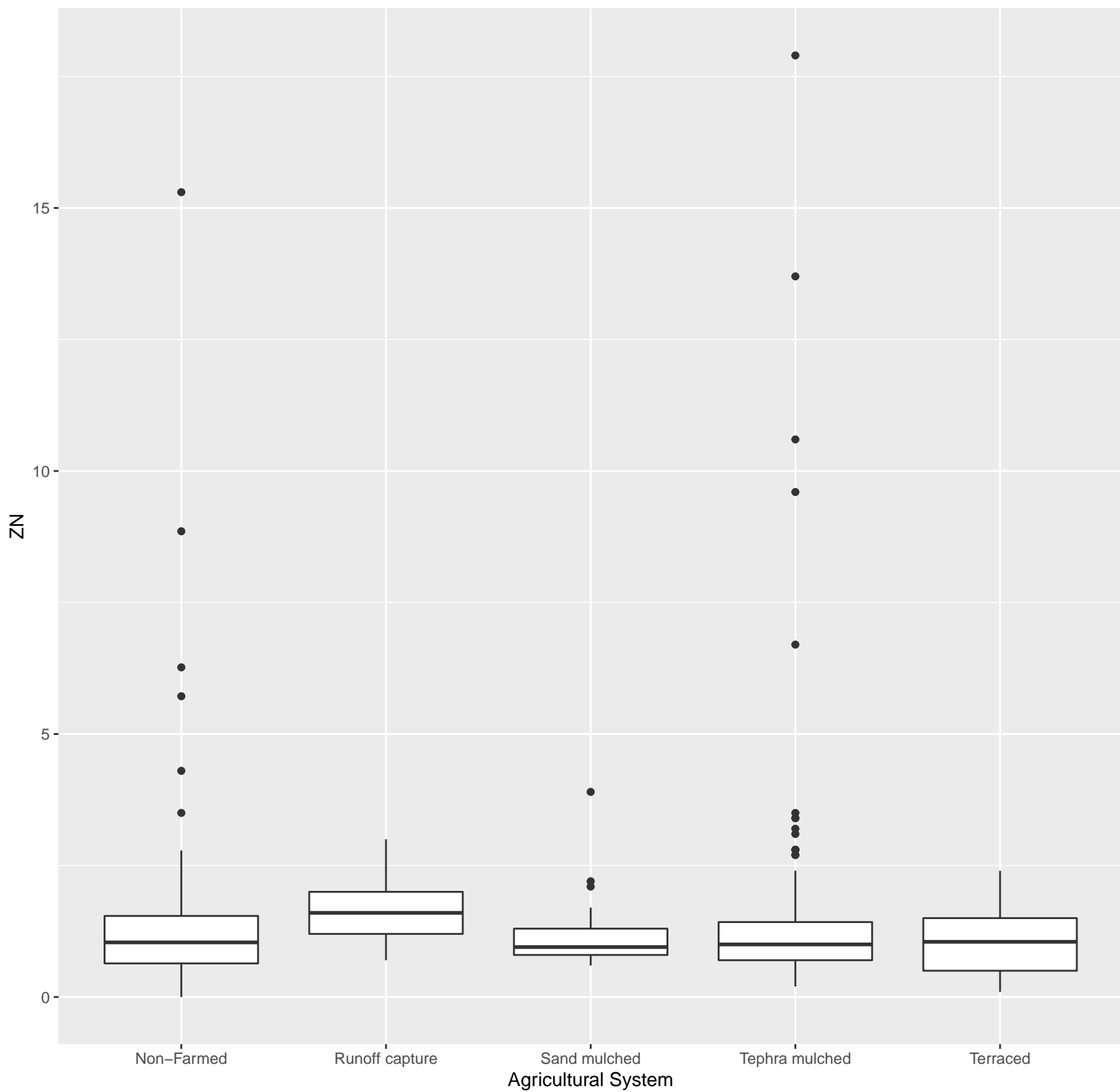




ZN according to location and Soil Position



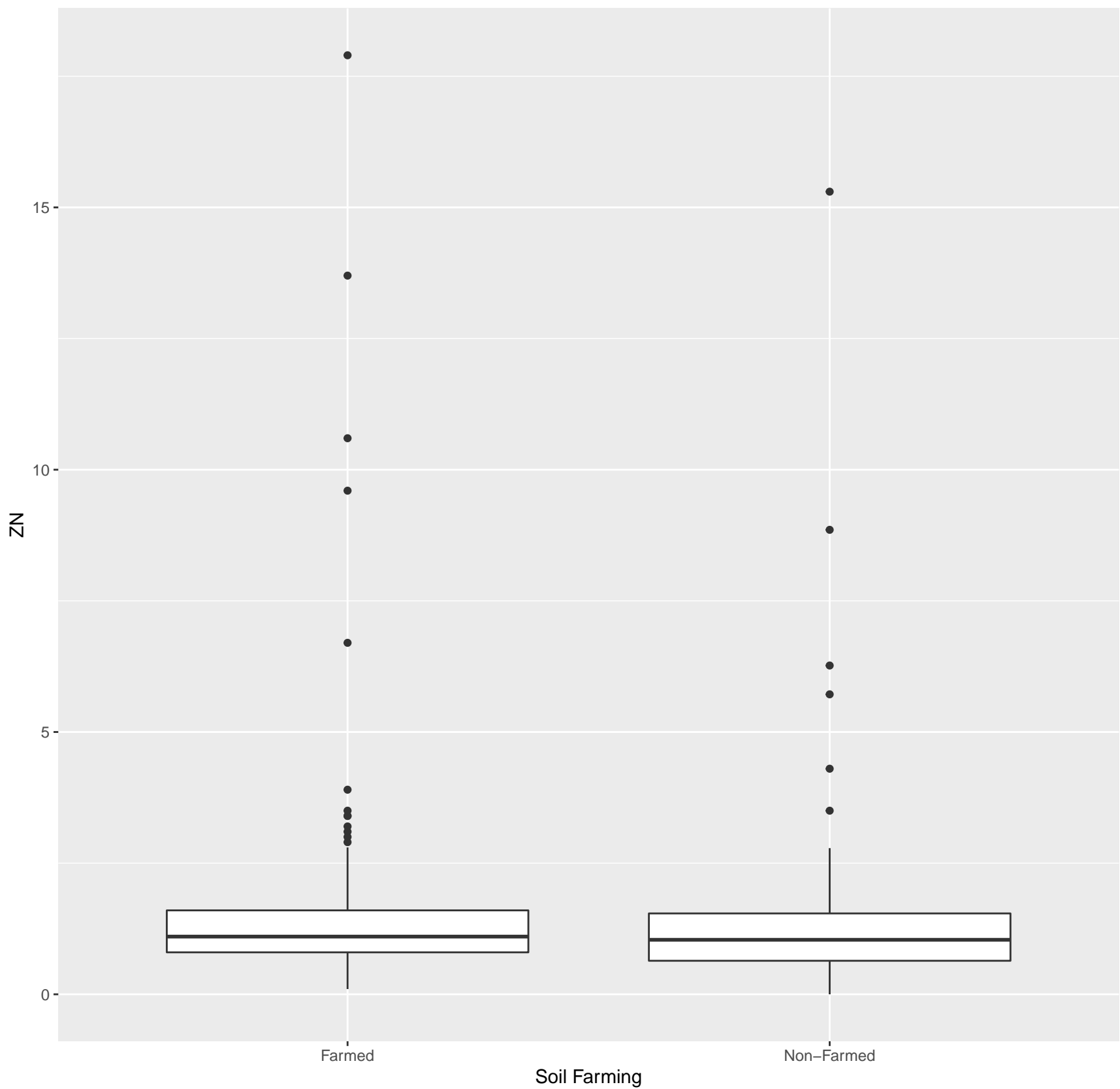
ZN to Agricultural System



# Wilcox test for mean comparison

	.y.	group1	group2	n1	n2	statistic	p	p.adj	p.adj.signif
1	ZN	Non-Farmed	Runoff capture	176	83	4157.0	2.22e-08	1.78e-07	****
2	ZN	Non-Farmed	Sand mulched	176	60	5350.0	8.79e-01	1.00e+00	ns
3	ZN	Non-Farmed	Tephra mulched	176	160	14419.5	7.03e-01	1.00e+00	ns
4	ZN	Non-Farmed	Terraced	176	50	4743.0	4.01e-01	1.00e+00	ns
5	ZN	Runoff capture	Sand mulched	83	60	4034.0	2.49e-10	2.49e-09	****
6	ZN	Runoff capture	Tephra mulched	83	160	9918.0	2.68e-10	2.49e-09	****
7	ZN	Runoff capture	Terraced	83	50	3064.5	4.22e-06	2.95e-05	****
8	ZN	Sand mulched	Tephra mulched	60	160	5045.5	5.59e-01	1.00e+00	ns
9	ZN	Sand mulched	Terraced	60	50	1538.5	8.19e-01	1.00e+00	ns
10	ZN	Tephra mulched	Terraced	160	50	4214.5	5.68e-01	1.00e+00	ns

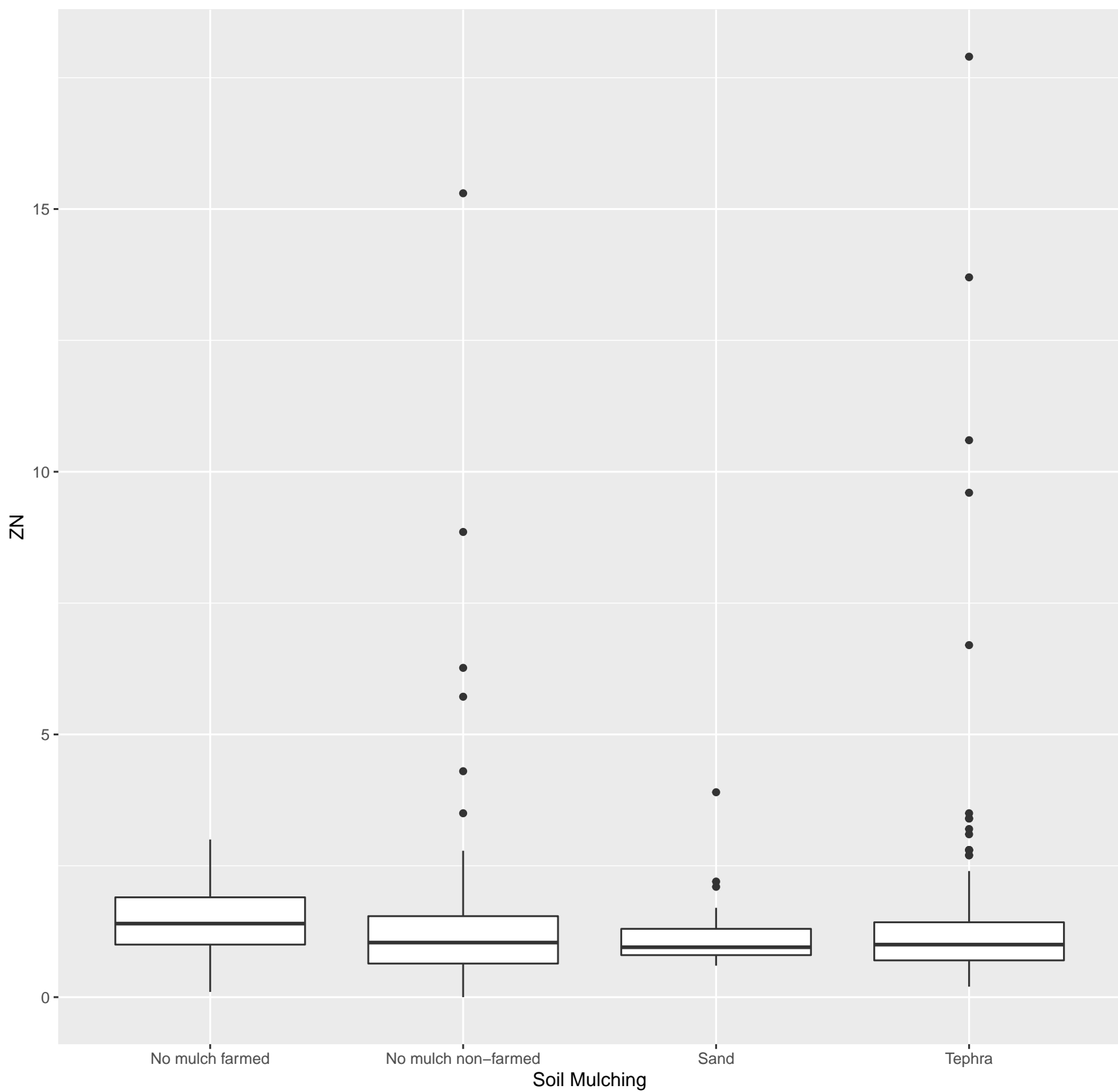
## ZN to Soil Farming



# Wilcox test for mean comparison

	.y.	group1	group2	n1	n2	statistic	p
1	ZN	Farmed	Non-Farmed	353	176	33458.5	0.148

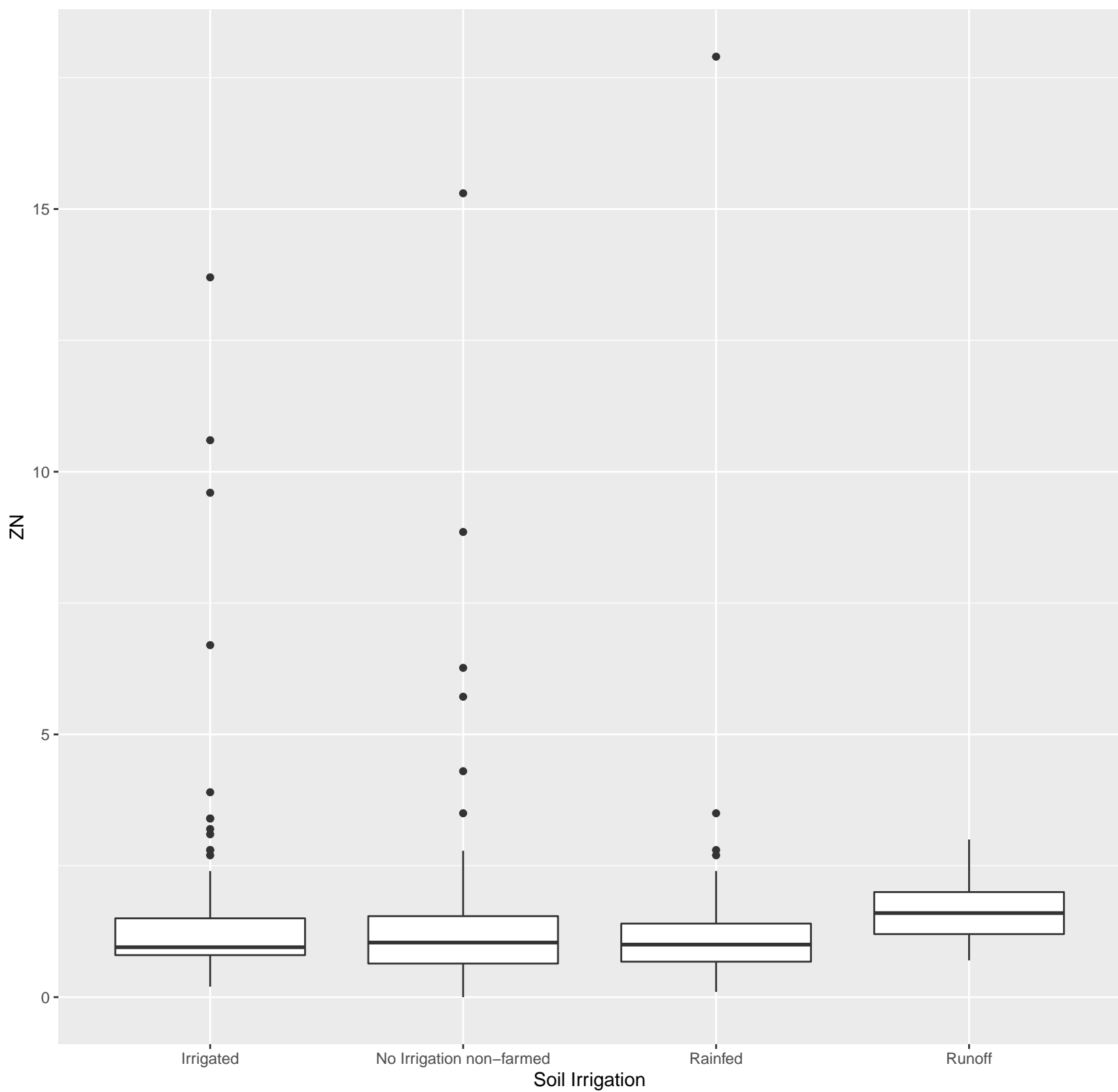
ZN to Soil Mulching



# Wilcox test for mean comparison

	.y.	group1	group2	n1	n2	statistic	p	p.adj	p.adj.signif
1	ZN	No mulch farmed	No mulch non-farmed	133	176	14508.0	3.11e-04	0.001000	**
2	ZN	No mulch farmed	Sand	133	60	5495.5	2.71e-05	0.000136	***
3	ZN	No mulch farmed	Tephra	133	160	13703.5	2.16e-05	0.000130	***
4	ZN	No mulch non-farmed	Sand	176	60	5350.0	8.79e-01	1.000000	ns
5	ZN	No mulch non-farmed	Tephra	176	160	14419.5	7.03e-01	1.000000	ns
6	ZN	Sand	Tephra	60	160	5045.5	5.59e-01	1.000000	ns

ZN to Soil Irrigation

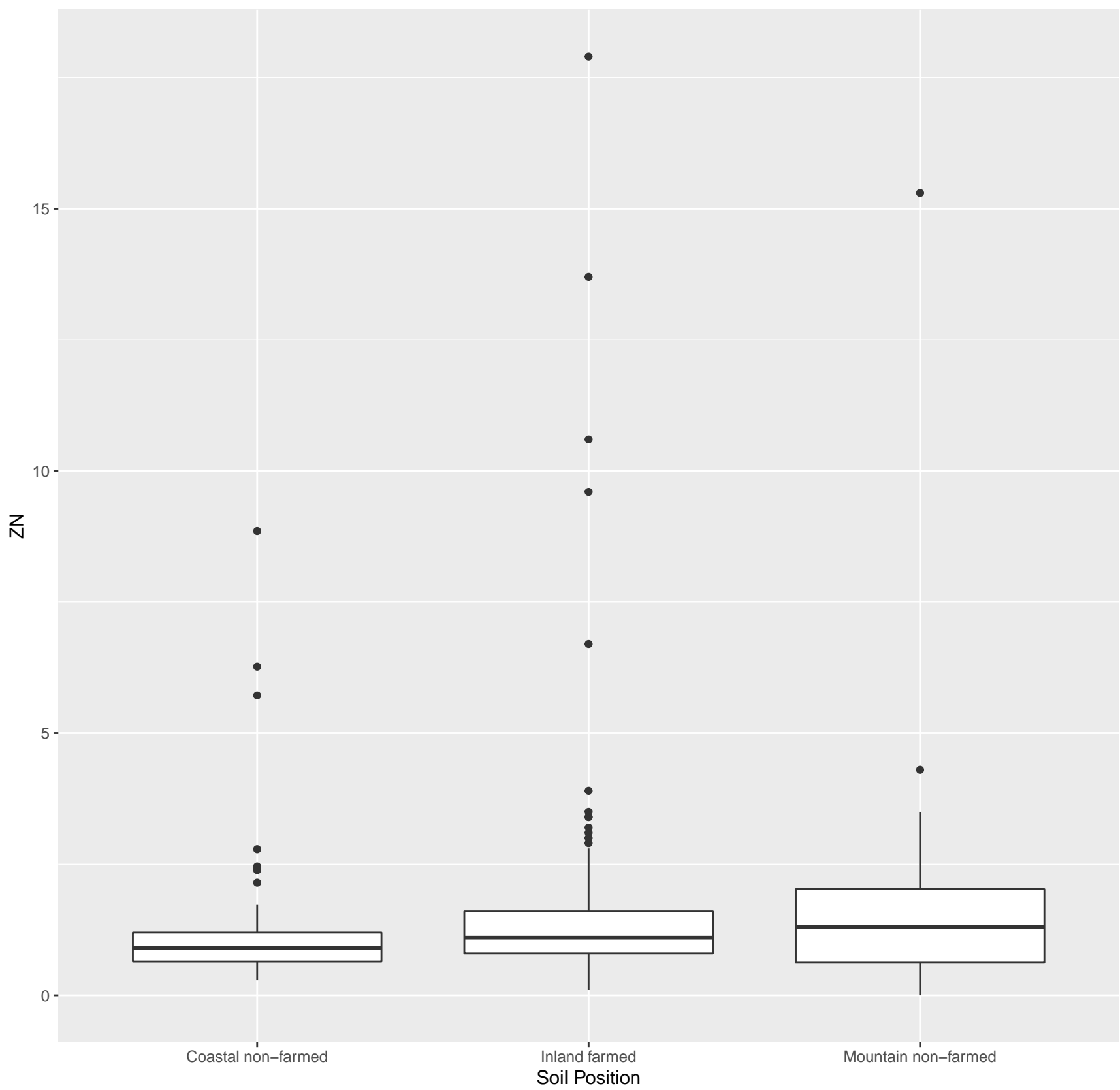




# Wilcox test for mean comparison

	.y.	group1	group2	n1	n2	statistic	p	p.adj	p.adj.signif
1	ZN	Irrigated	No Irrigation non-farmed	110	176	10007.5	6.31e-01	6.31e-01	ns
2	ZN	Irrigated	Rainfed	110	160	9708.0	1.49e-01	4.47e-01	ns
3	ZN	Irrigated	Runoff	110	83	2546.5	1.44e-07	5.76e-07	****
4	ZN	No Irrigation non-farmed	Rainfed	176	160	15160.0	2.25e-01	4.50e-01	ns
5	ZN	No Irrigation non-farmed	Runoff	176	83	4157.0	2.22e-08	1.11e-07	****
6	ZN	Rainfed	Runoff	160	83	2847.0	2.69e-13	1.61e-12	****

ZN to Soil Position



# Wilcox test for mean comparison

.y.	group1	group2	n1	n2	statistic	p	p.adj	p.adj.signif
1 ZN	Coastal non-farmed	Inland farmed	90	353	12527.0	0.002	0.006	**
2 ZN	Coastal non-farmed	Mountain non-farmed	90	86	3031.0	0.013	0.026	*
3 ZN	Inland farmed	Mountain non-farmed	353	86	14215.5	0.361	0.361	ns