

The MEANS Procedure

Variable	Label	N	Mean	Std Dev	Minimum	Maximum
iden	Identifier	178	1.9382022	0.7750350	1.0000000	3.0000000
alco	Alcohol	178	13.0006180	0.8118265	11.0300000	14.8300000
mali	Malic acid	178	2.3363483	1.1171461	0.7400000	5.8000000
ash	Ash	178	2.3665169	0.2743440	1.3600000	3.2300000
alca	Alcalinity of ash	178	19.4949438	3.3395638	10.6000000	30.0000000
magn	Magnesium	178	99.7415730	14.2824835	70.0000000	162.0000000
tota	Total phenols	178	2.2951124	0.6258510	0.9800000	3.8800000
flav	Flavanoids	178	2.0292697	0.9988587	0.3400000	5.0800000
nonf	Nonflavanoid phenols	178	0.3618539	0.1244533	0.1300000	0.6600000
proa	Proanthocyanins	178	1.5908989	0.5723589	0.4100000	3.5800000
colo	Color intensity	178	5.0580899	2.3182859	1.2800000	13.0000000
hue	Hue	178	0.9574494	0.2285716	0.4800000	1.7100000
od28	OD280/OD315 of diluted wines	178	2.6116854	0.7099904	1.2700000	4.0000000
prol	Proline	178	746.8932584	314.9074743	278.0000000	1680.00

The UNIVARIATE Procedure
Variable: mali (Malic acid)

Moments			
N	178	Sum Weights	178
Mean	2.33634831	Sum Observations	415.87
Std Deviation	1.1171461	Variance	1.2480154
Skewness	1.03965119	Kurtosis	0.29920668
Uncorrected SS	1192.5159	Corrected SS	220.898726
Coeff Variation	47.8159053	Std Error Mean	0.08373364

Basic Statistical Measures			
Location		Variability	
Mean	2.336348	Std Deviation	1.11715
Median	1.865000	Variance	1.24802
Mode	1.730000	Range	5.06000
		Interquartile Range	1.50000

Tests for Location: $\mu_0=0$				
Test	Statistic		p Value	
Student's t	t	27.90215	Pr > t 	<.0001
Sign	M	89	Pr >= M 	<.0001
Signed Rank	S	7965.5	Pr >= S 	<.0001

Tests for Normality				
Test	Statistic		p Value	
Shapiro-Wilk	W	0.888784	Pr < W	<0.0001
Kolmogorov-Smirnov	D	0.191276	Pr > D	<0.0100
Cramer-von Mises	W-Sq	1.453361	Pr > W-Sq	<0.0050
Anderson-Darling	A-Sq	7.619251	Pr > A-Sq	<0.0050

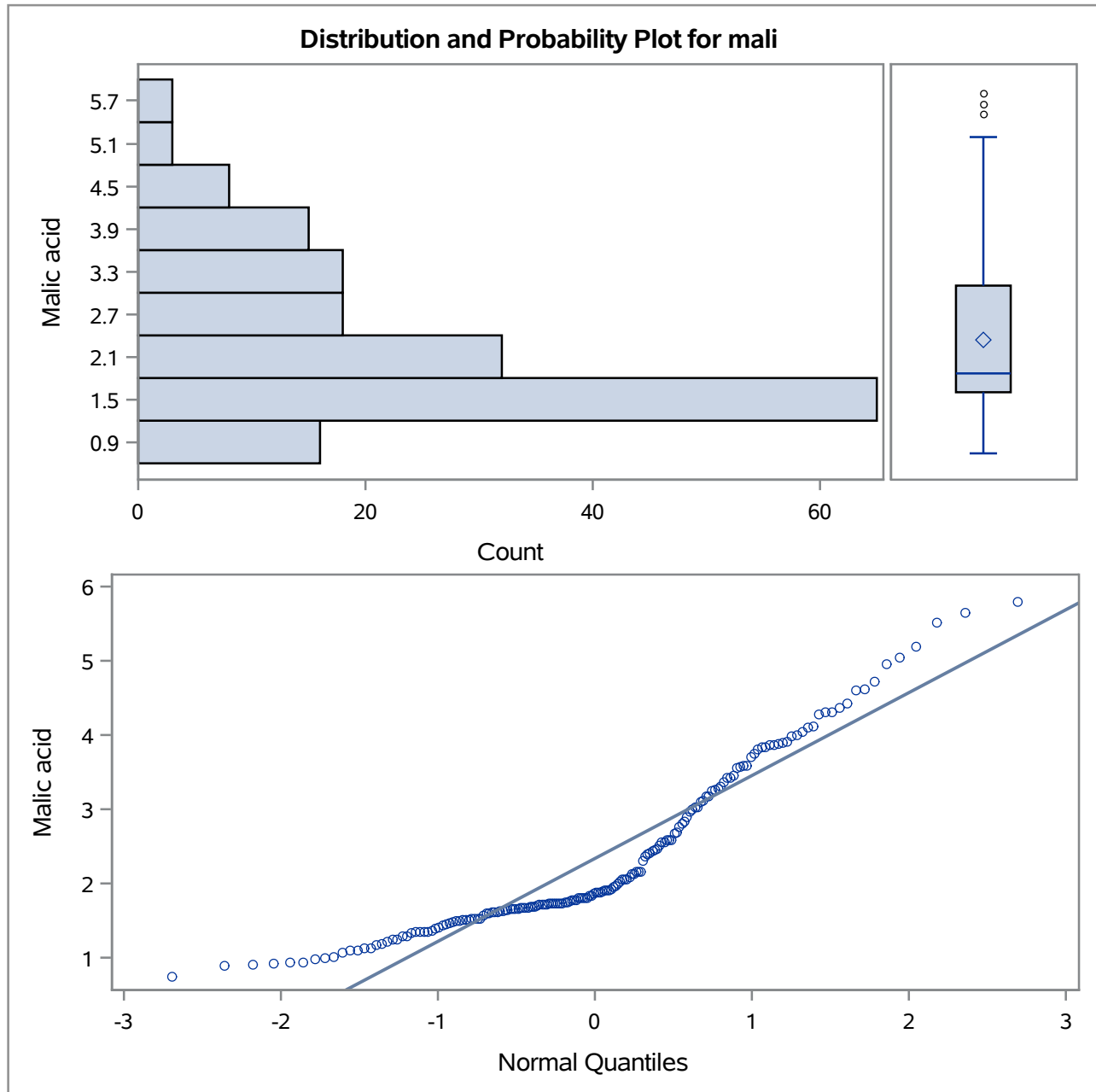
Quantiles (Definition 5)	
Level	Quantile
100% Max	5.800
99%	5.650
95%	4.600
90%	3.990
75% Q3	3.100
50% Median	1.865
25% Q1	1.600

The UNIVARIATE Procedure
Variable: mali (Malic acid)

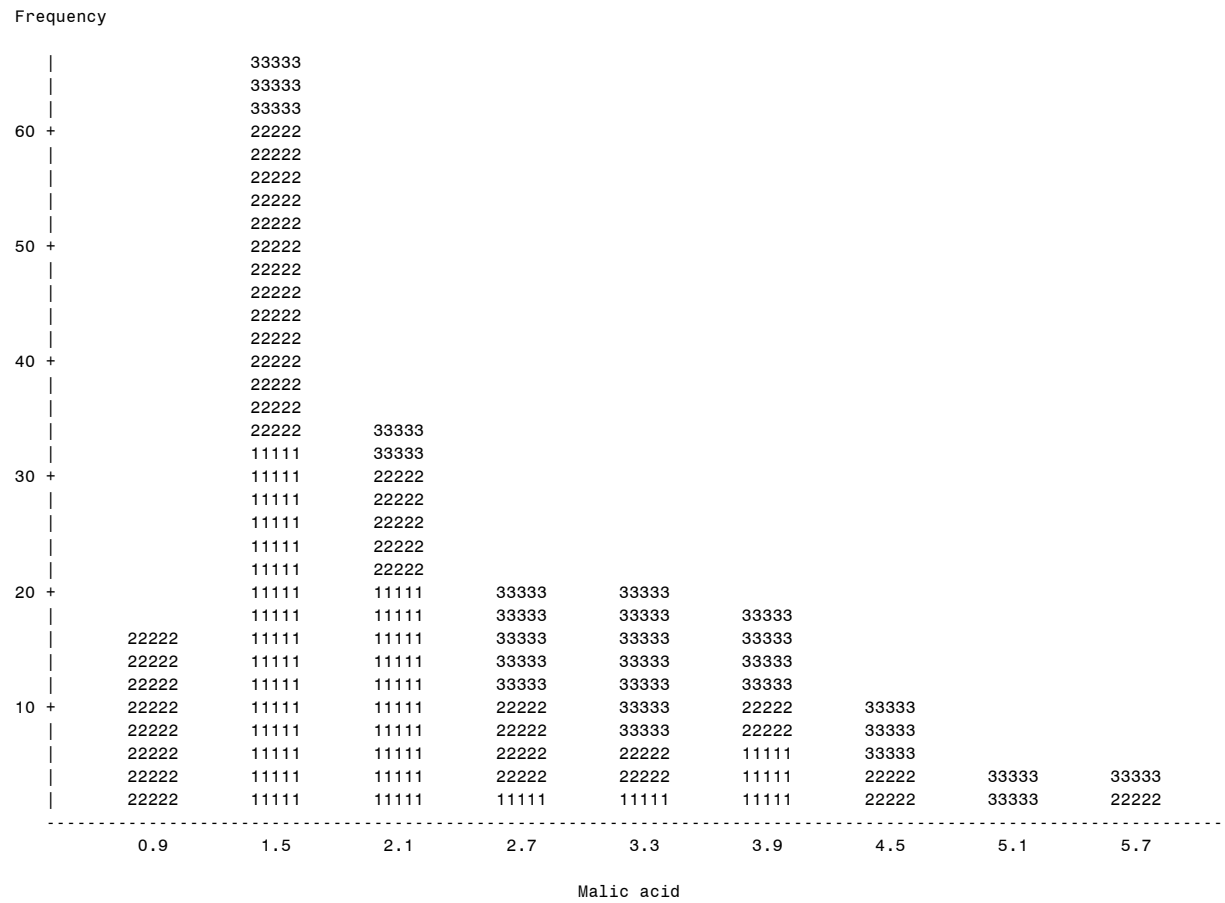
Quantiles (Definition 5)	
Level	Quantile
10%	1.240
5%	1.010
1%	0.890
0% Min	0.740

Extreme Observations					
Lowest			Highest		
Value	iden	Obs	Value	iden	Obs
0.74	2	114	5.04	3	147
0.89	2	85	5.19	3	156
0.90	2	77	5.51	3	138
0.92	2	81	5.65	3	174
0.94	2	69	5.80	2	124

The UNIVARIATE Procedure



Histogram of Malic acid from wine dataset

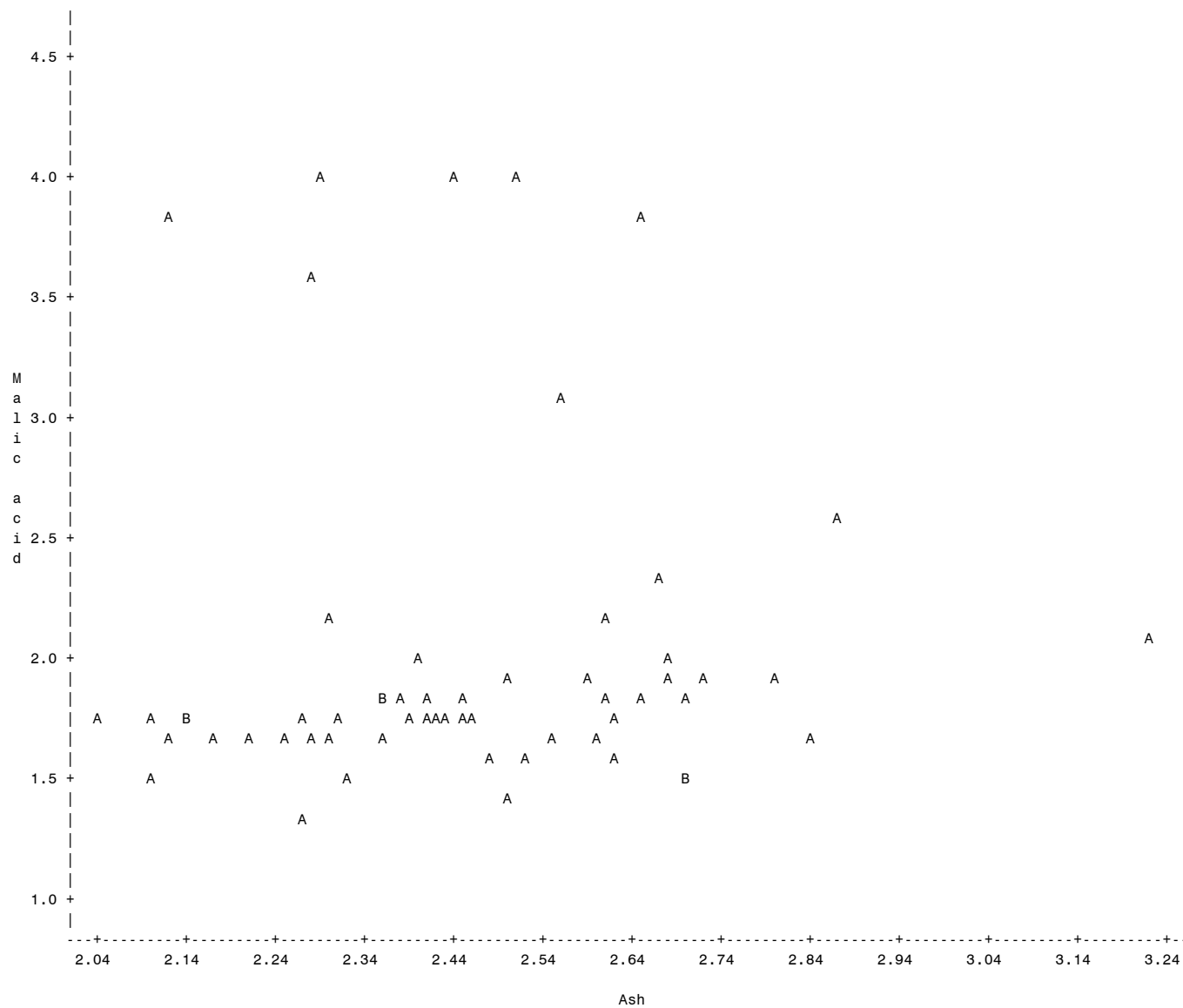


Symbol iden	Symbol iden	Symbol iden
1 1	2 2	3 3

Histogram of Malic acid from wine dataset

Identifier=1

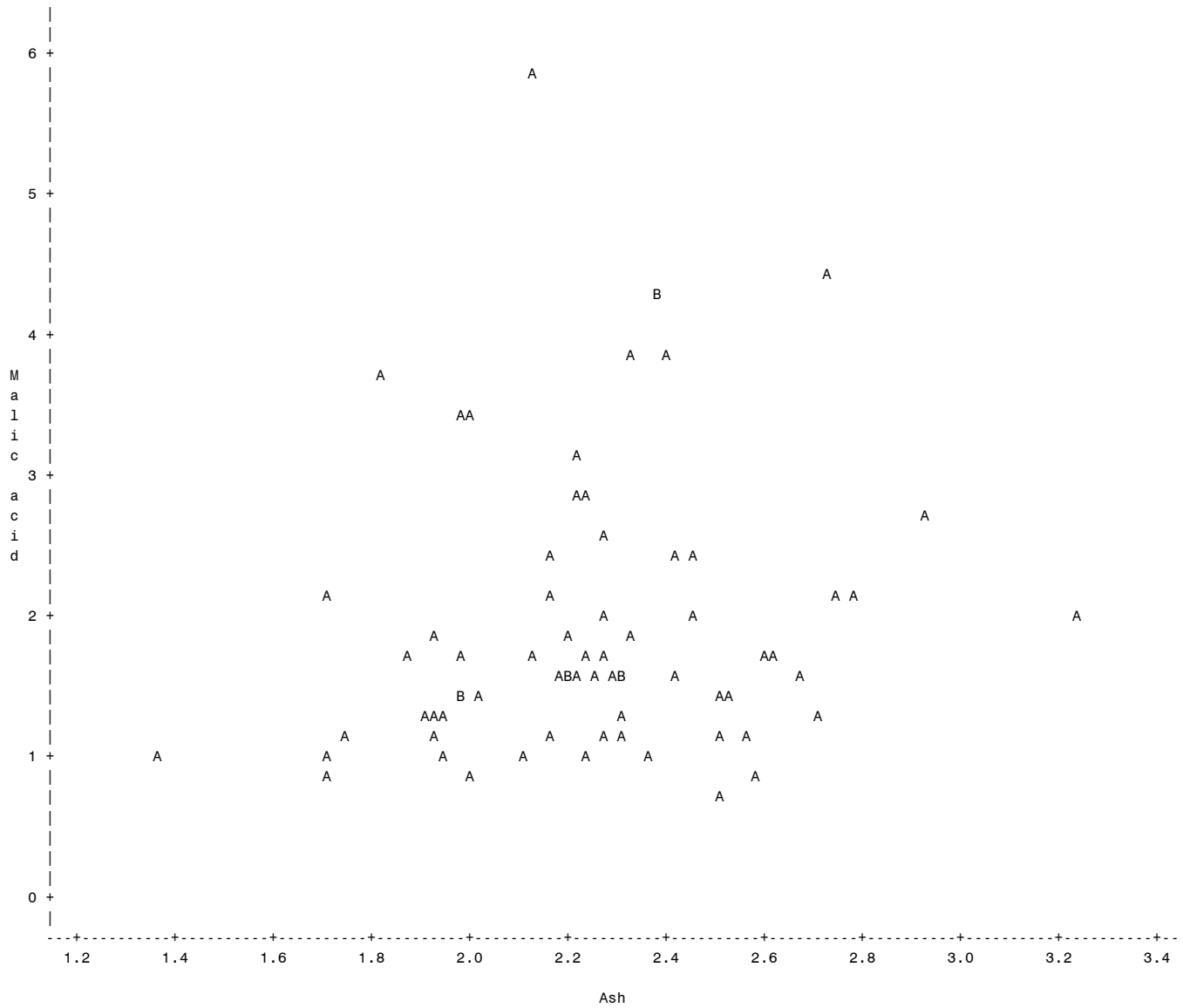
Plot of mali*ash. Legend: A = 1 obs, B = 2 obs, etc.



Histogram of Malic acid from wine dataset

Identifier=2

Plot of mali*ash. Legend: A = 1 obs, B = 2 obs, etc.



Histogram of Malic acid from wine dataset

Identifier=3

Plot of mali*ash. Legend: A = 1 obs, B = 2 obs, etc.

