

Total Sample Size	36	DF Total	35
Variables	4	DF Within Classes	33
Classes	3	DF Between Classes	2

Number of Observations Read	36
Number of Observations Used	36

Class Level Information					
method	Variable Name	Frequency	Weight	Proportion	Prior Probability
1	_1	12	12.0000	0.333333	0.333333
2	_2	12	12.0000	0.333333	0.333333
3	_3	12	12.0000	0.333333	0.333333

Within Covariance Matrix Information		
method	Covariance Matrix Rank	Natural Log of the Determinant of the Covariance Matrix
1	4	-7.18668
2	4	-5.46534
3	4	-6.69193
Pooled	4	-5.99054

Test of Homogeneity of Within Covariance Matrices

Chi-Square	DF	Pr > ChiSq
12.473068	20	0.8988

Since the Chi-Square value is not significant at the 0.1 level, a pooled covariance matrix will be used in the discriminant function.

Reference: Morrison, D.F. (1976) Multivariate Statistical Methods p252.

Generalized Squared Distance to method			
From method	1	2	3
1	0	3.22120	7.57314
2	3.22120	0	1.00825
3	7.57314	1.00825	0

Linear Discriminant Function for method			
Variable	1	2	3
Constant	-176.39568	-149.09948	-134.39073
aroma	-7.14341	-4.84114	-4.08247
flavor	38.16444	33.09210	30.34820
texture	20.53717	17.90567	16.81500
moisture	8.35042	8.86406	9.04667

Classification Summary for Calibration Data: WORK.FISH

Resubstitution Summary using Linear Discriminant Function

Number of Observations and Percent Classified into method				
From method	1	2	3	Total
1	11 91.67	1 8.33	0 0.00	12 100.00
2	3 25.00	6 50.00	3 25.00	12 100.00
3	0 0.00	3 25.00	9 75.00	12 100.00
Total	14 38.89	10 27.78	12 33.33	36 100.00
Priors	0.33333	0.33333	0.33333	

Error Count Estimates for method				
	1	2	3	Total
Rate	0.0833	0.5000	0.2500	0.2778
Priors	0.3333	0.3333	0.3333	

Class Level Information		
Class	Levels	Values
method	3	1 2 3

Number of Observations Read	36
Number of Observations Used	36

Dependent Variable: aroma

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	1.05055556	0.52527778	1.29	0.2880
Error	33	13.40833333	0.40631313		
Corrected Total	35	14.45888889			

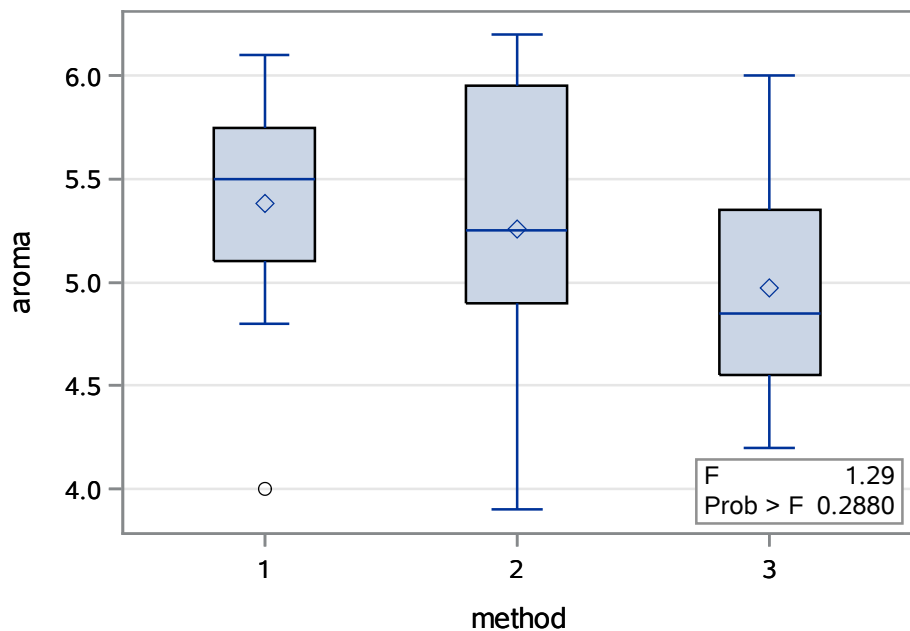
R-Square	Coeff Var	Root MSE	aroma Mean
0.072658	12.24513	0.637427	5.205556

Source	DF	Type I SS	Mean Square	F Value	Pr > F
method	2	1.05055556	0.52527778	1.29	0.2880

Source	DF	Type III SS	Mean Square	F Value	Pr > F
method	2	1.05055556	0.52527778	1.29	0.2880

Dependent Variable: aroma

Distribution of aroma



Dependent Variable: flavor

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	4.60500000	2.30250000	9.38	0.0006
Error	33	8.10250000	0.24553030		
Corrected Total	35	12.70750000			

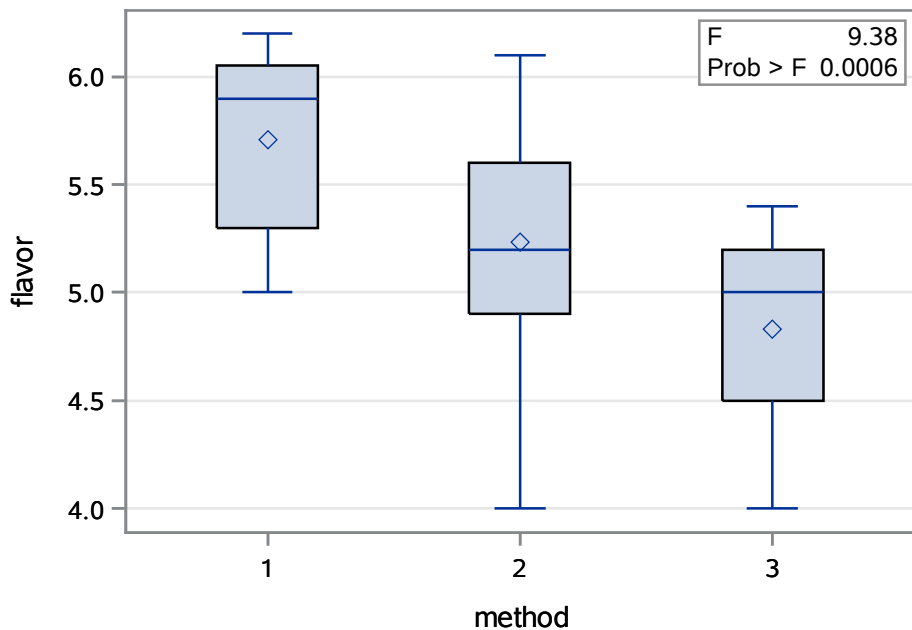
R-Square	Coeff Var	Root MSE	flavor Mean
0.362384	9.423331	0.495510	5.258333

Source	DF	Type I SS	Mean Square	F Value	Pr > F
method	2	4.60500000	2.30250000	9.38	0.0006

Source	DF	Type III SS	Mean Square	F Value	Pr > F
method	2	4.60500000	2.30250000	9.38	0.0006

Dependent Variable: flavor

Distribution of flavor



Dependent Variable: texture

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	2.38222222	1.19111111	3.39	0.0460
Error	33	11.60750000	0.35174242		
Corrected Total	35	13.98972222			

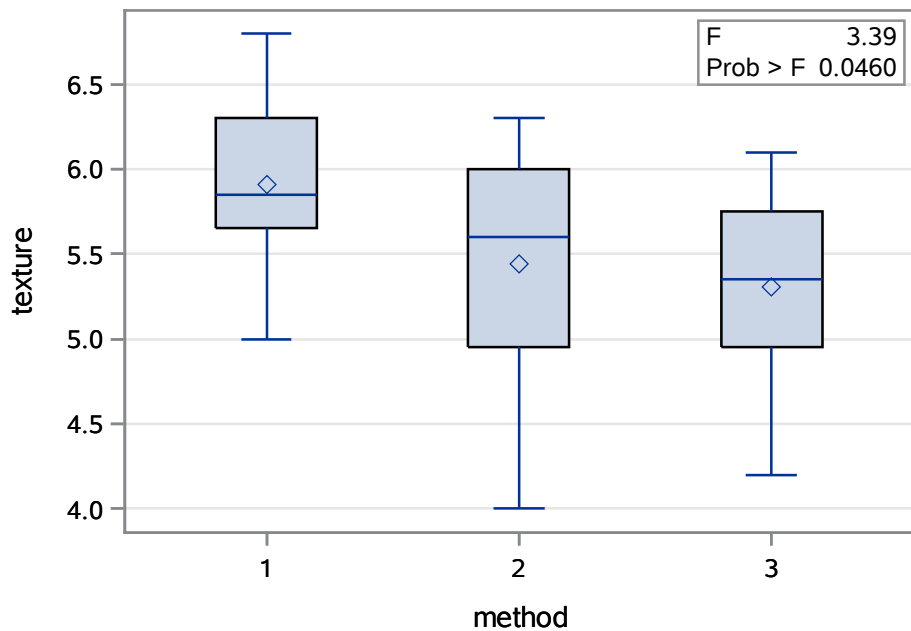
R-Square	Coeff Var	Root MSE	texture Mean
0.170284	10.68076	0.593079	5.552778

Source	DF	Type I SS	Mean Square	F Value	Pr > F
method	2	2.38222222	1.19111111	3.39	0.0460

Source	DF	Type III SS	Mean Square	F Value	Pr > F
method	2	2.38222222	1.19111111	3.39	0.0460

Dependent Variable: texture

Distribution of texture



Dependent Variable: moisture

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	0.81055556	0.40527778	1.27	0.2954
Error	33	10.56583333	0.32017677		
Corrected Total	35	11.37638889			

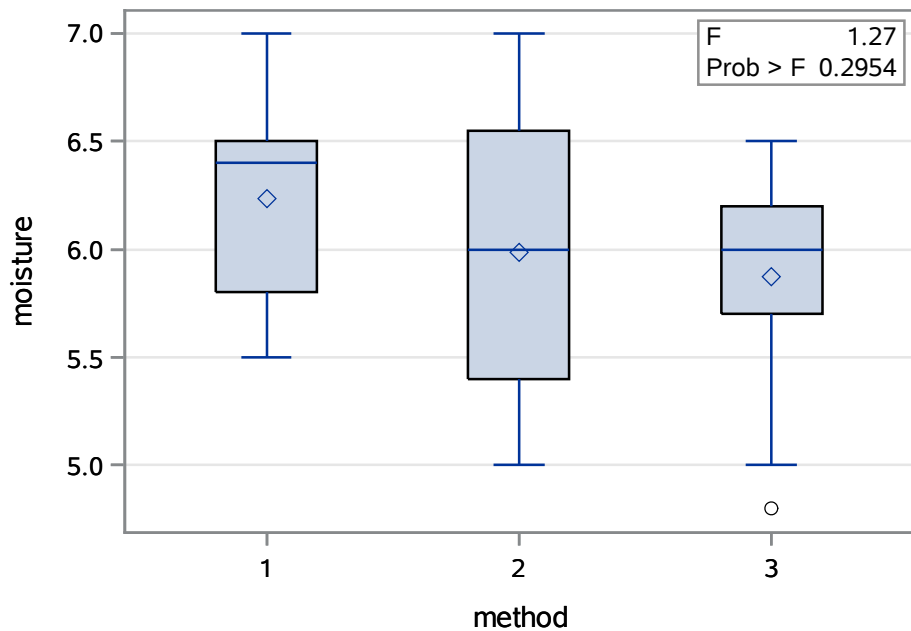
R-Square	Coeff Var	Root MSE	moisture Mean
0.071249	9.382911	0.565842	6.030556

Source	DF	Type I SS	Mean Square	F Value	Pr > F
method	2	0.81055556	0.40527778	1.27	0.2954

Source	DF	Type III SS	Mean Square	F Value	Pr > F
method	2	0.81055556	0.40527778	1.27	0.2954

Dependent Variable: moisture

Distribution of moisture



Multivariate Analysis of Variance

Characteristic Roots and Vectors of: $E^{-1}H$, where
 H = Type III SSCP Matrix for method
 E = Error SSCP Matrix

Characteristic Root	Percent	Characteristic Vector $V'EV=1$			
		aroma	flavor	texture	moisture
1.41653071	99.02	-0.19752392	0.49462537	0.23815929	-0.04480780
0.01408589	0.98	0.22778053	-0.00741780	-0.15730371	0.04466183
0.00000000	0.00	-0.08821606	0.02646143	-0.21887787	0.40240335
0.00000000	0.00	0.27595304	-0.25855059	0.18925158	0.00000000

Multivariate Analysis of Variance

MANOVA Test Criteria and F Approximations for the Hypothesis of No Overall method Effect
H = Type III SSCP Matrix for method
E = Error SSCP Matrix

S=2 M=0.5 N=14

Statistic	Value	F Value	Num DF	Den DF
Wilks' Lambda	0.40806838	4.24	8	60
Pillai's Trace	0.60007385	3.32	8	62
Hotelling-Lawley Trace	1.43061660	5.27	8	40.602
Roy's Greatest Root	1.41653071	10.98	4	31

NOTE: F Statistic for Roy's Greatest Root is an upper bound.

NOTE: F Statistic for Wilks' Lambda is exact.

Multivariate Analysis of Variance

**MANOVA Test Criteria and F
Approximations for the Hypothesis of
No Overall method Effect**

H = Type III SSCP Matrix for method

E = Error SSCP Matrix

S=2 M=0.5 N=14

Statistic	Pr > F
Wilks' Lambda	0.0004
Pillai's Trace	0.0032
Hotelling-Lawley Trace	0.0001
Roy's Greatest Root	<.0001
NOTE: F Statistic for Roy's Greatest Root is an upper bound.	
NOTE: F Statistic for Wilks' Lambda is exact.	