

APIT Rice Doctor

Grain Analyser Quality Control Report

General Information

Operator Name:	Mr/Ms. ABC
Location of sample:	XYZ
Rice Mill Name:	PQR Mills
Report Generated:	August 20, 2025
Process ID:	M2_20250818_185038
Machine:	N/A

Grain Information

Parameter	Value
Variety	ADT
Process	Parboiled
Testing Type	Batch
Sampling Technique	Systematic
Batch Number	1

Grain Properties

Nutritional Parameters		Morphological Parameters		GMAD Parameters	
Protein	7 %	Length	6 mm	Gelatinization Temp	65 °C
Carbohydrates	78 %	Breadth	2 mm	Moisture	14 %

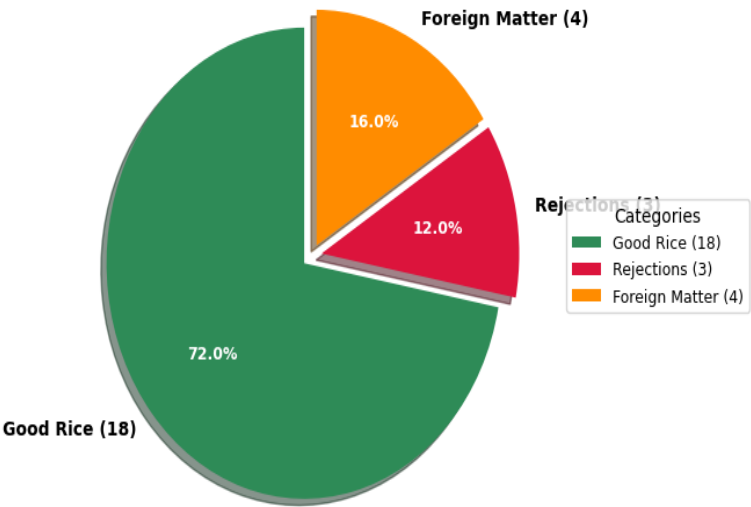
Vitamin	0.5 mg	Weight	20 mg	Age	6 months
Mineral	1 %	Aspectratio	3	Density	1.4 g/cm3
Lipids	0.8 %	Hardness	7 N		

Quality Analysis Summary

Machine Analysis - Sift i (sifter)

Category	Count	Percentage
Good Rice	18	72.0%
Rejections	3	12.0%
Foreign Matter	4	16.0%
Total	25	100.0%

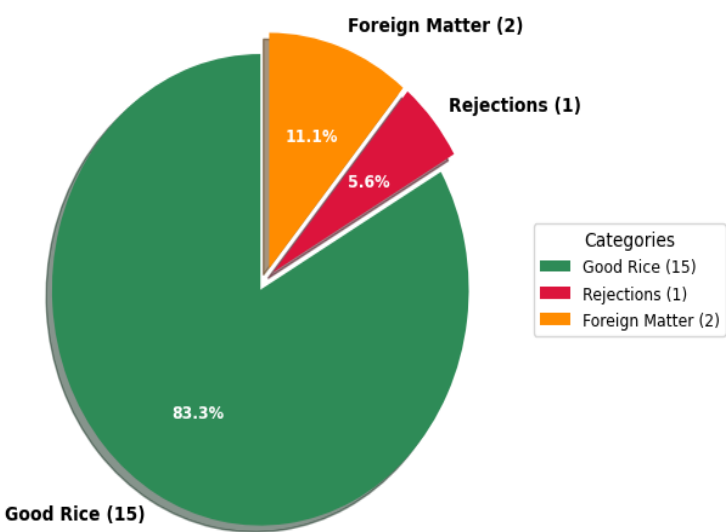
Quality Distribution - Sift i (sifter)



Machine Analysis - Paddy sort i (tray seperator)

Category	Count	Percentage
Good Rice	15	83.3%
Rejections	1	5.6%
Foreign Matter	2	11.1%
Total	18	100.0%

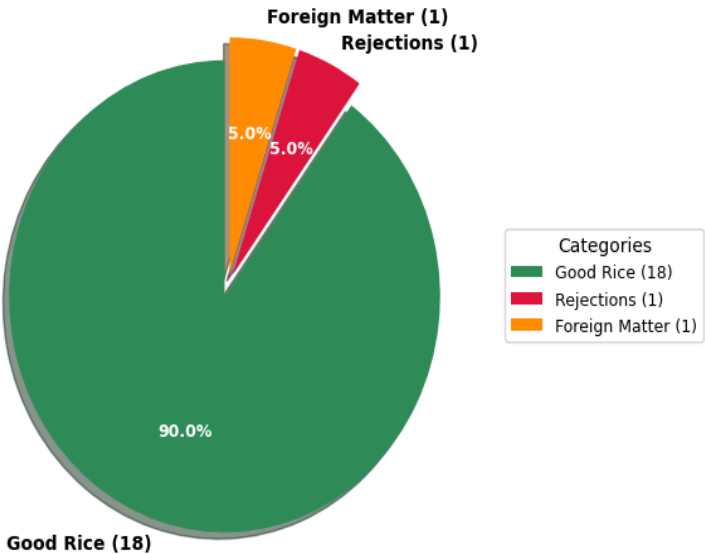
Quality Distribution - Paddy sort i (tray seperator)



Machine Analysis - Stone sort i (destoner)





Category	Count	Percentage
Good Rice	18	90.0%
Rejections	1	5.0%
Foreign Matter	1	5.0%
Total	20	100.0%

Quality Distribution - Stone sort i (destoner)






Good Rice Analysis

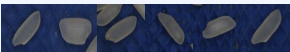


Machine Analysis - Sift i (sifter)

Category	Count	Percentage	Sample Images
Head Rice	8	44.4%	
3/4 Head Rice	6	33.3%	
1/2 Broken	3	16.7%	
1/4 Fine Broken	1	5.6%	
Tips	0	0.0%	No images available
Total	18	100.0%	

Machine Analysis - Paddy sort i (tray seperator)

Category	Count	Percentage	Sample Images
Head Rice	8	57.1%	
3/4 Head Rice	4	28.6%	
1/2 Broken	2	14.3%	
1/4 Fine Broken	0	0.0%	No images available
Tips	0	0.0%	No images available
Total	14	100.0%	

Machine Analysis - Stone sort i (destoner)

Category	Count	Percentage	Sample Images
Head Rice	8	57.1%	
3/4 Head Rice	5	35.7%	
1/2 Broken	0	0.0%	No images available
1/4 Fine Broken	1	7.1%	
Tips	0	0.0%	No images available
Total	14	100.0%	

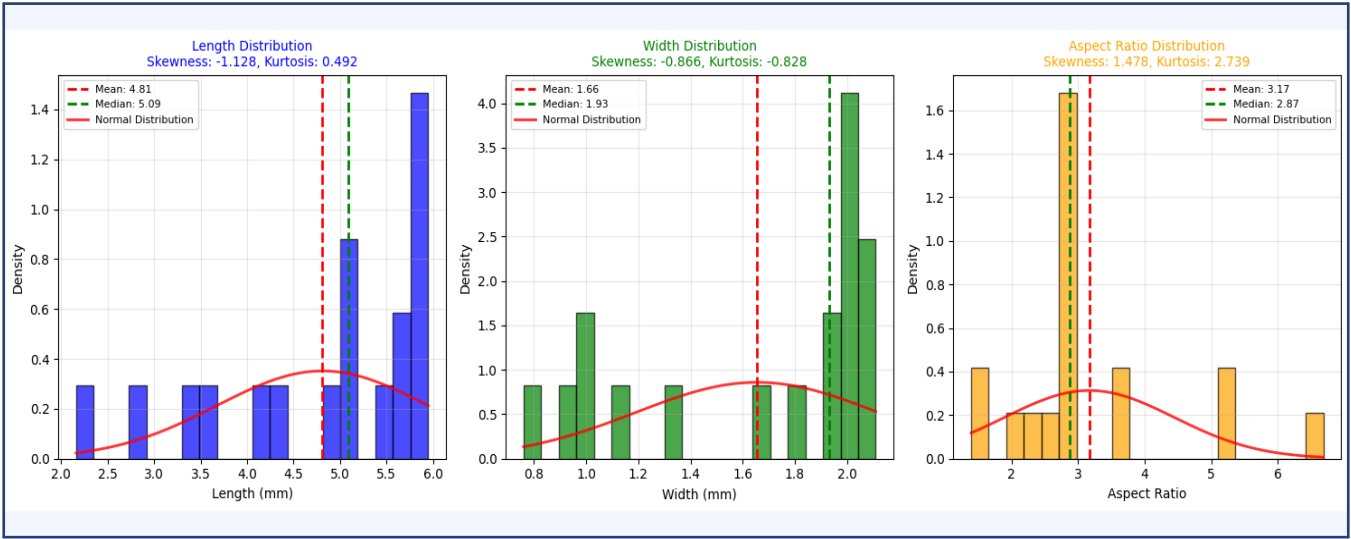
Statistical Analysis of Good Rice

Machine Analysis - Sift i (sifter)

	Length (mm)	Width (mm)	Aspect Ratio
Mean	4.81	1.65	3.17
Mode	5.8	2.0	2.9
Median	5.09	1.93	2.87
Std Deviation	1.13	0.46	1.27
Min	2.16	0.76	1.39
Max	5.95	2.11	6.68
Coefficient of Variation (CV%)	23.57%	28.06%	40.21%

Distribution Analysis (Skewness & Kurtosis) - Sift i (sifter)

Parameter	Skewness Value	Skewness Interpretation	Kurtosis Value	Kurtosis Interpretation
Length (mm)	-1.128	Highly left-skewed (negative skew)	0.492	Mesokurtic (normal-like)
Width (mm)	-0.866	Moderately left-skewed (negative skew)	-0.828	Moderately platykurtic (light tails)
Aspect Ratio	1.478	Highly right-skewed (positive skew)	2.739	Highly leptokurtic (heavy tails)

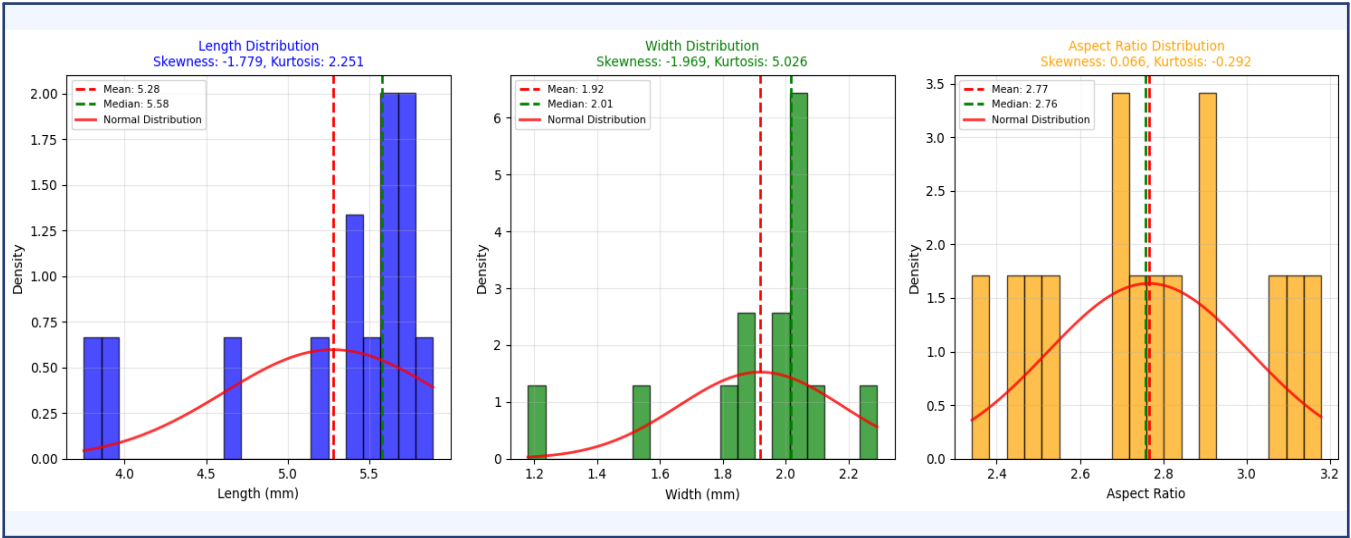


Machine Analysis - Paddy sort i (tray seperator)

	Length (mm)	Width (mm)	Aspect Ratio
Mean	5.28	1.92	2.77
Mode	5.7	2.0	2.5
Median	5.58	2.01	2.76
Std Deviation	0.67	0.26	0.24
Min	3.75	1.18	2.34
Max	5.89	2.29	3.18
Coefficient of Variation (CV%)	12.67%	13.64%	8.83%

Distribution Analysis (Skewness & Kurtosis) - Paddy sort i (tray seperator)

Parameter	Skewness Value	Skewness Interpretation	Kurtosis Value	Kurtosis Interpretation
Length (mm)	-1.779	Highly left-skewed (negative skew)	2.251	Highly leptokurtic (heavy tails)
Width (mm)	-1.969	Highly left-skewed (negative skew)	5.026	Highly leptokurtic (heavy tails)
Aspect Ratio	0.066	Approximately symmetric (normal-like)	-0.292	Mesokurtic (normal-like)

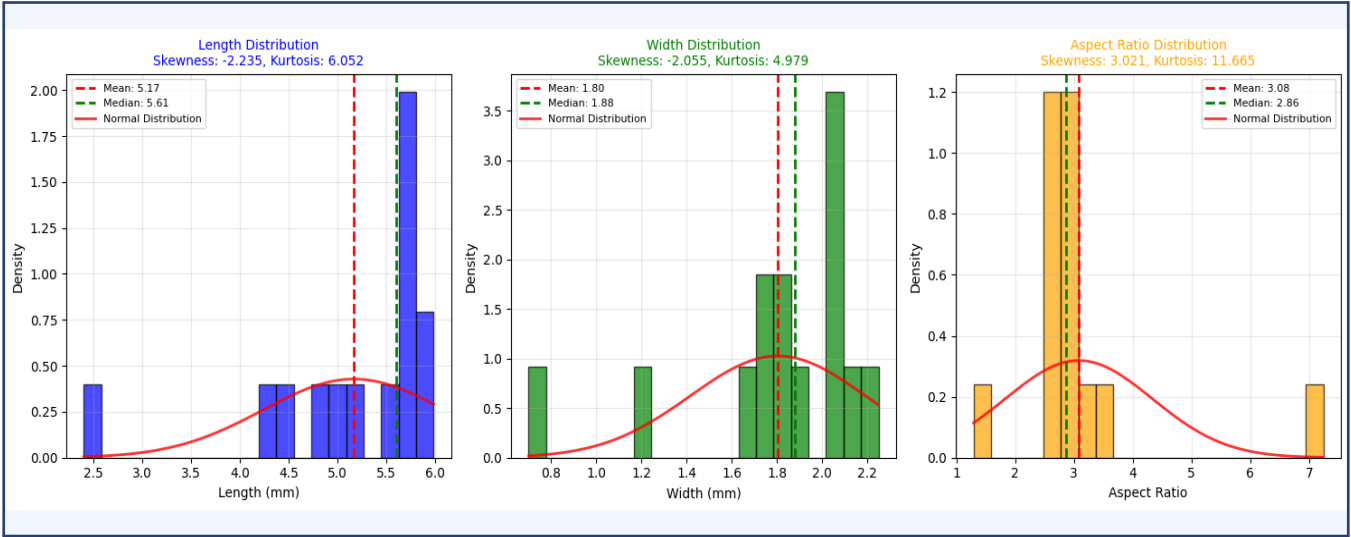


Machine Analysis - Stone sort i (destoner)

	Length (mm)	Width (mm)	Aspect Ratio
Mean	5.17	1.8	3.08
Mode	5.8	2.1	3.0
Median	5.61	1.88	2.86
Std Deviation	0.93	0.39	1.25
Min	2.4	0.7	1.29
Max	5.99	2.25	7.24
Coefficient of Variation (CV%)	18.04%	21.57%	40.56%

Distribution Analysis (Skewness & Kurtosis) - Stone sort i (destoner)

Parameter	Skewness Value	Skewness Interpretation	Kurtosis Value	Kurtosis Interpretation
Length (mm)	-2.235	Highly left-skewed (negative skew)	6.052	Highly leptokurtic (heavy tails)
Width (mm)	-2.055	Highly left-skewed (negative skew)	4.979	Highly leptokurtic (heavy tails)
Aspect Ratio	3.021	Highly right-skewed (positive skew)	11.665	Highly leptokurtic (heavy tails)



RGB Color Analysis of Good Rice

RGB Color Analysis of Good Rice - Sift i (sifter)

	Red Channel	Green Channel	Blue Channel
Mean	91.1	92.5	95.2
Mode	83.3	96.5	92.4
Median	92.8	93.8	92.6
Std Deviation	6.5	6.3	6.7
Min	80.6	82.3	83.7
Max	100.9	102.2	105.1
Coefficient of Variation (CV%)	7.1%	6.8%	7.0%

RGB Color Analysis of Good Rice - Paddy sort i (tray seperator)

	Red Channel	Green Channel	Blue Channel
Mean	96.3	95.1	91.5
Mode	97.2	97.3	96.4
Median	93.5	94.9	90.2
Std Deviation	11.5	10.3	13.7
Min	74.1	76.7	63.2
Max	115.0	110.5	111.5
Coefficient of Variation (CV%)	11.9%	10.8%	14.9%

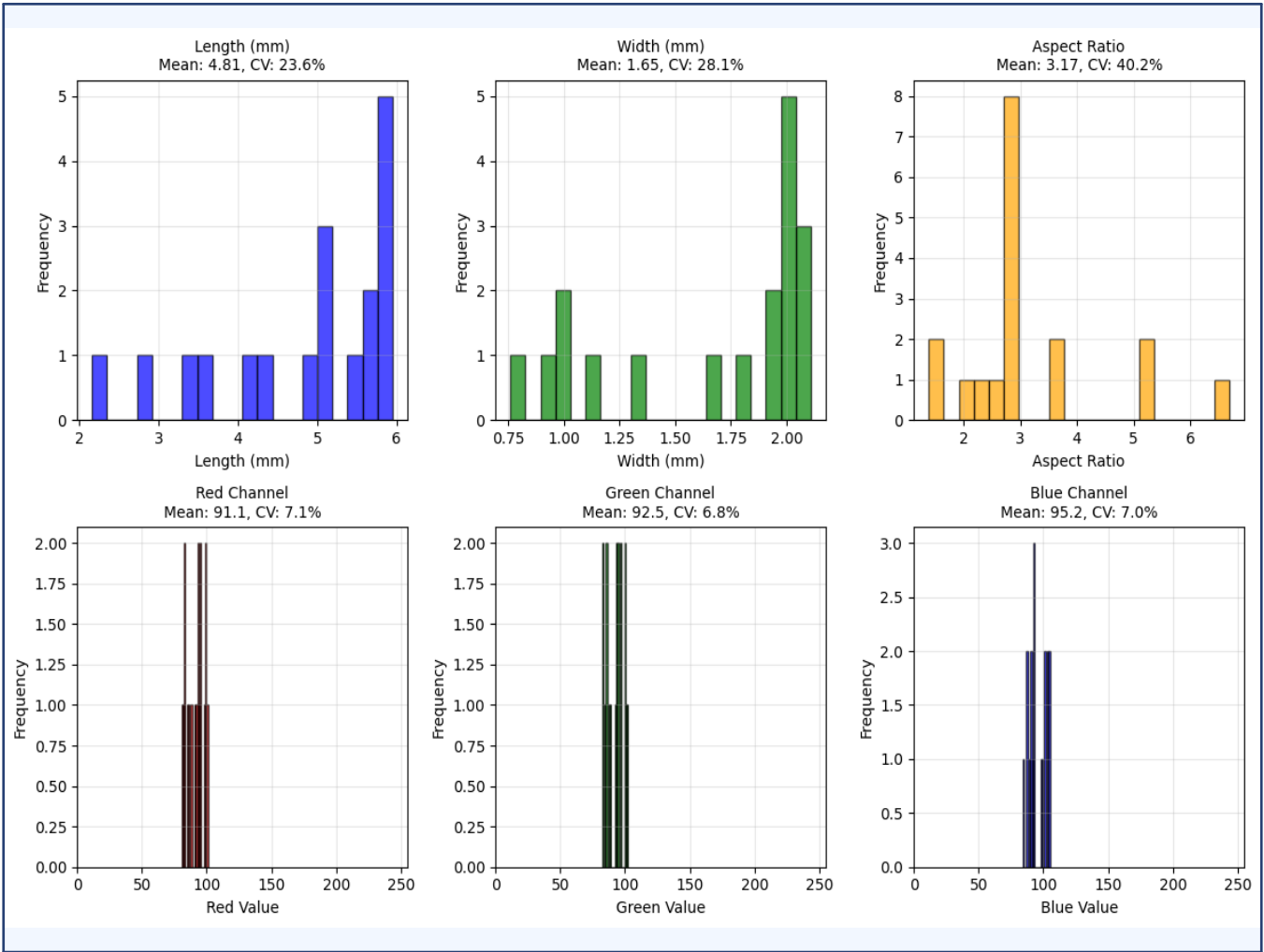
RGB Color Analysis of Good Rice - Stone sort i (destoner)

	Red Channel	Green Channel	Blue Channel
Mean	87.6	89.0	90.5
Mode	81.4	96.4	98.5
Median	89.0	89.9	89.2
Std Deviation	11.4	9.9	7.6

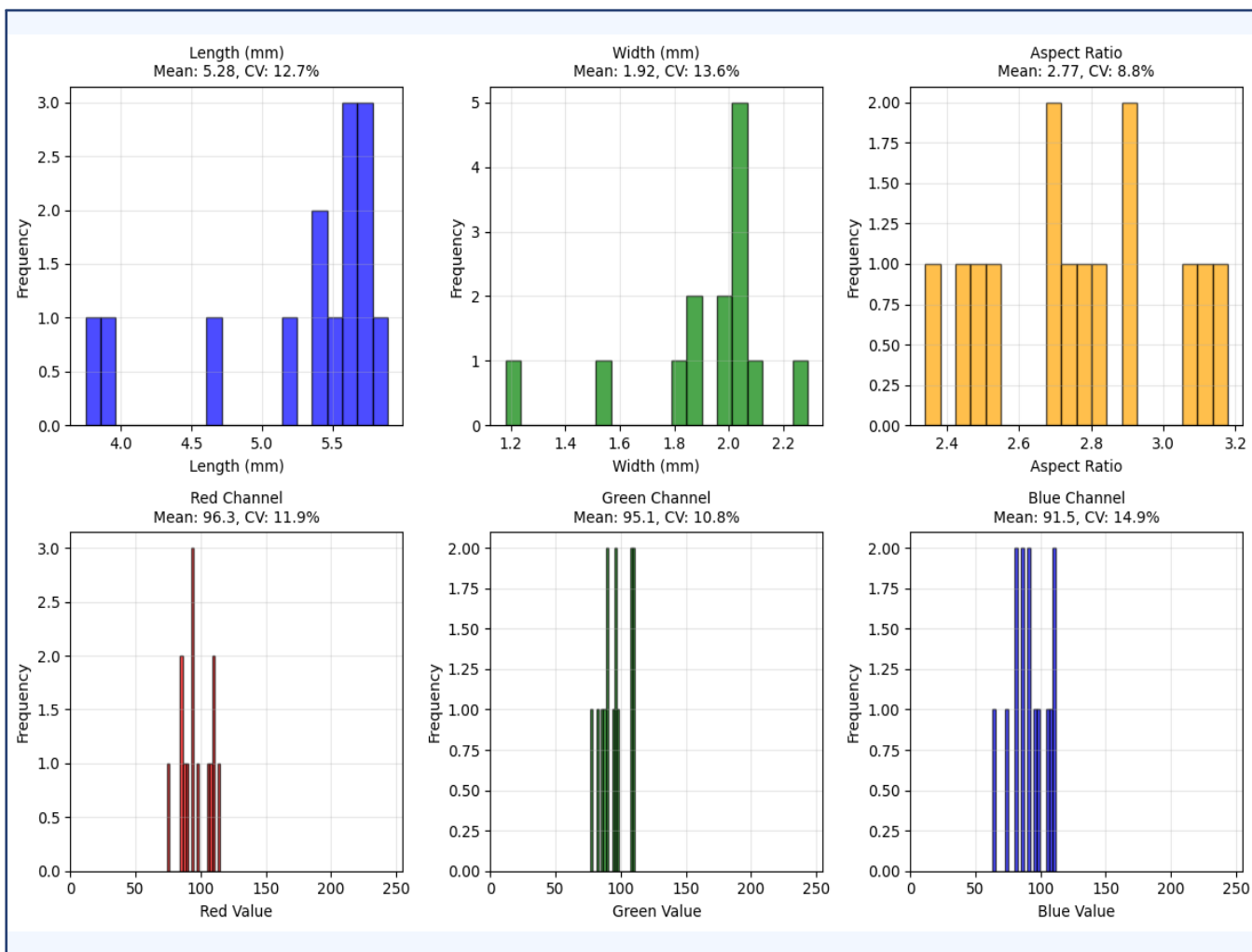
Min	54.0	61.0	76.2
Max	103.5	103.9	105.0
Coefficient of Variation (CV%)	13.0%	11.2%	8.4%

General Analysis

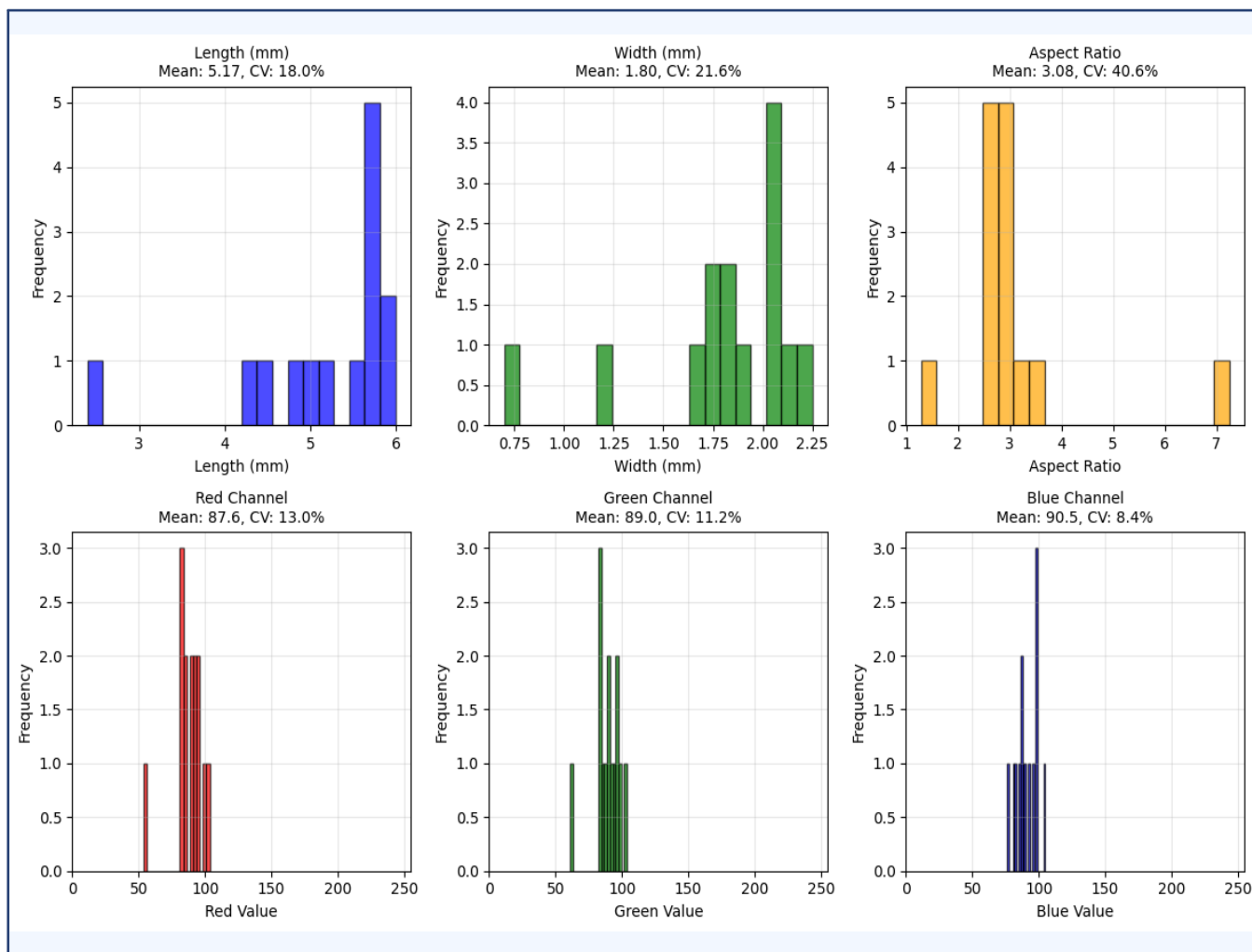
Machine Analysis - Sift i (sifter)



Machine Analysis - Paddy sort i (tray seperator)

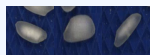


Machine Analysis - Stone sort i (destoner)




Rejections Analysis


Machine Analysis - Sift i (sifter)

Category	Count	Percentage	Sample Images
Chalky	3	100.0%	
Total	3	100.0%	

Machine Analysis - Paddy sort i (tray seperator)

Category	Count	Percentage	Sample Images
Chalky	1	100.0%	
Total	1	100.0%	

Machine Analysis - Stone sort i (destoner)

Category	Count	Percentage	Sample Images
Chalky	1	100.0%	
Total	1	100.0%	

Foreign Matter Analysis

Machine Analysis - Sift i (sifter)

Category	Count	Percentage	Sample Images
Brown Rice	4	100.0%	No images available
Total	4	100.0%	

Machine Analysis - Paddy sort i (tray seperator)

Category	Count	Percentage	Sample Images
Brown Rice	2	100.0%	No images available
Total	2	100.0%	

Machine Analysis - Stone sort i (destoner)

Category	Count	Percentage	Sample Images
Brown Rice	1	100.0%	No images available
Total	1	100.0%	