Regression- No Precipitation

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	AvgTemp, BeefConsumption_US, Sorghum, Beef_Production_BillionPounds, Barley, Maize, SoyaBeans[b]	.	Enter

a. Dependent Variable: Beef_Value_SlaughterMarket

b. All requested variables entered.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.902[a]	.814	.679	6.94834	.814	6.015	8	11	.004

a. Predictors: (Constant), AvgTemp, BeefConsumption_US, Sorghum, Beef_Production_BillionPounds, Precipitation, Barley, Maize, SoyaBeans

b. Dependent Variable: Beef_Value_SlaughterMarket

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2323.224	8	290.403	6.015	.004[b]
	Residual	531.074	11	48.279		
	Total	2854.298	19			

a. Dependent Variable: Beef_Value_SlaughterMarket

b. Predictors: (Constant), AvgTemp, BeefConsumption_US, Sorghum, Beef_Production_BillionPounds, Precipitation, Barley, Maize, SoyaBeans

Coefficients[a]

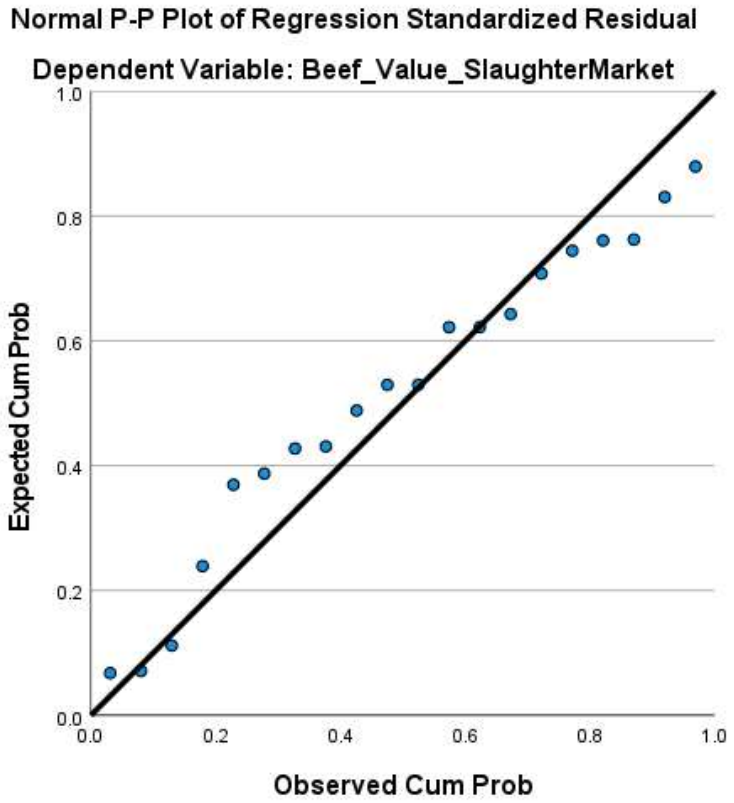
Model		Unstandardized Coefficients		Standardized Coefficients			Correlations			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	161.967	151.754		1.067	.309					
	BeefConsumption_US	-7.256	2.304	-.656	-3.149	.009	-.637	-.688	-.409	.389	2.568
	Beef_Production_BillionPounds	.812	2.124	.072	.382	.710	-.235	.114	.050	.481	2.080
	Barley	-.001	.001	-.342	-1.484	.166	.492	-.408	-.193	.319	3.139
	Maize	.000	.000	-.225	-.615	.551	.536	-.182	-.080	.126	7.933
	Sorghum	.000	.001	-.138	-.505	.624	.323	-.151	-.066	.227	4.407
	SoyaBeans	.004	.001	1.018	2.652	.023	.686	.625	.345	.115	8.709
	Precipitation	1.007	1.287	.160	.783	.450	.291	.230	.102	.407	2.457
	AvgTemp	.101	2.388	.007	.042	.967	.299	.013	.005	.546	1.833

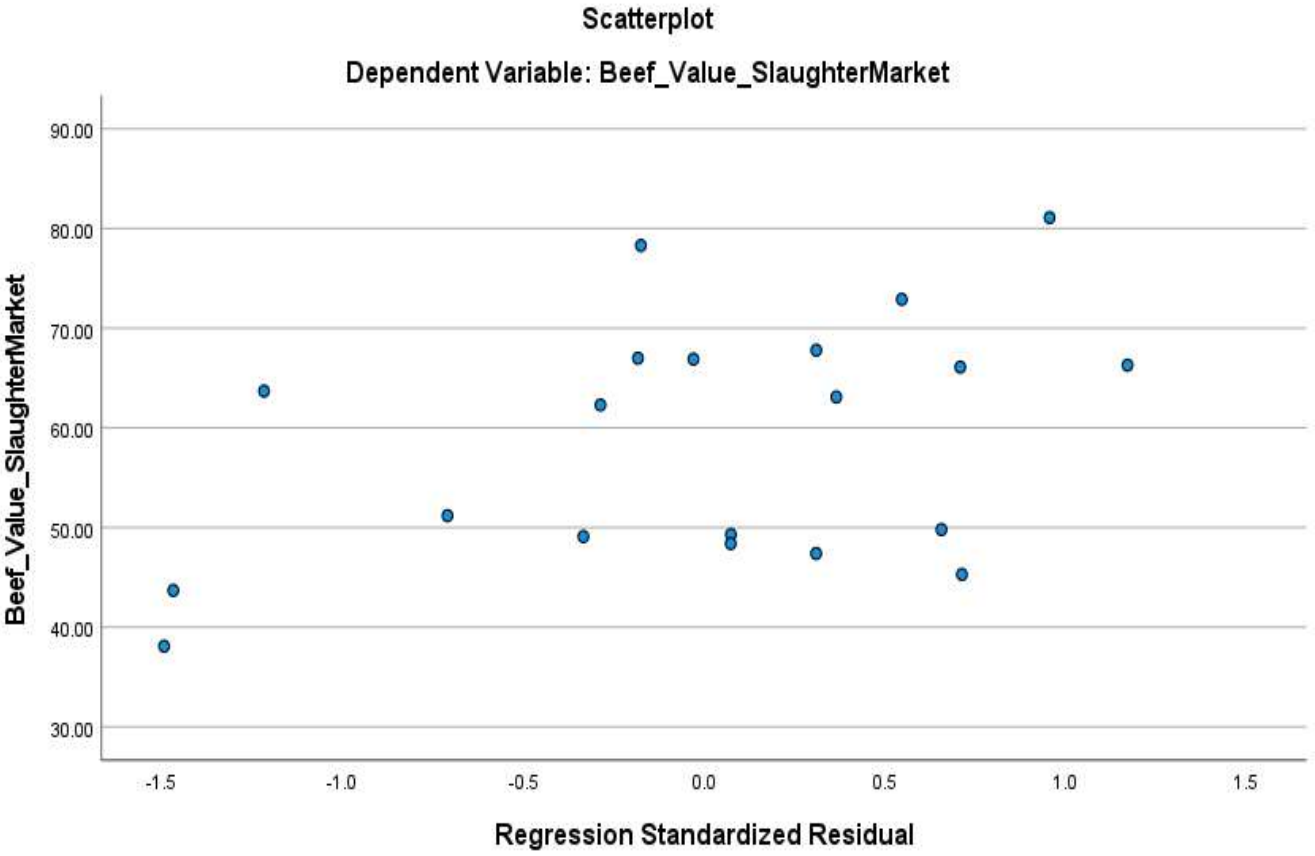
a. Dependent Variable: Beef_Value_SlaughterMarket

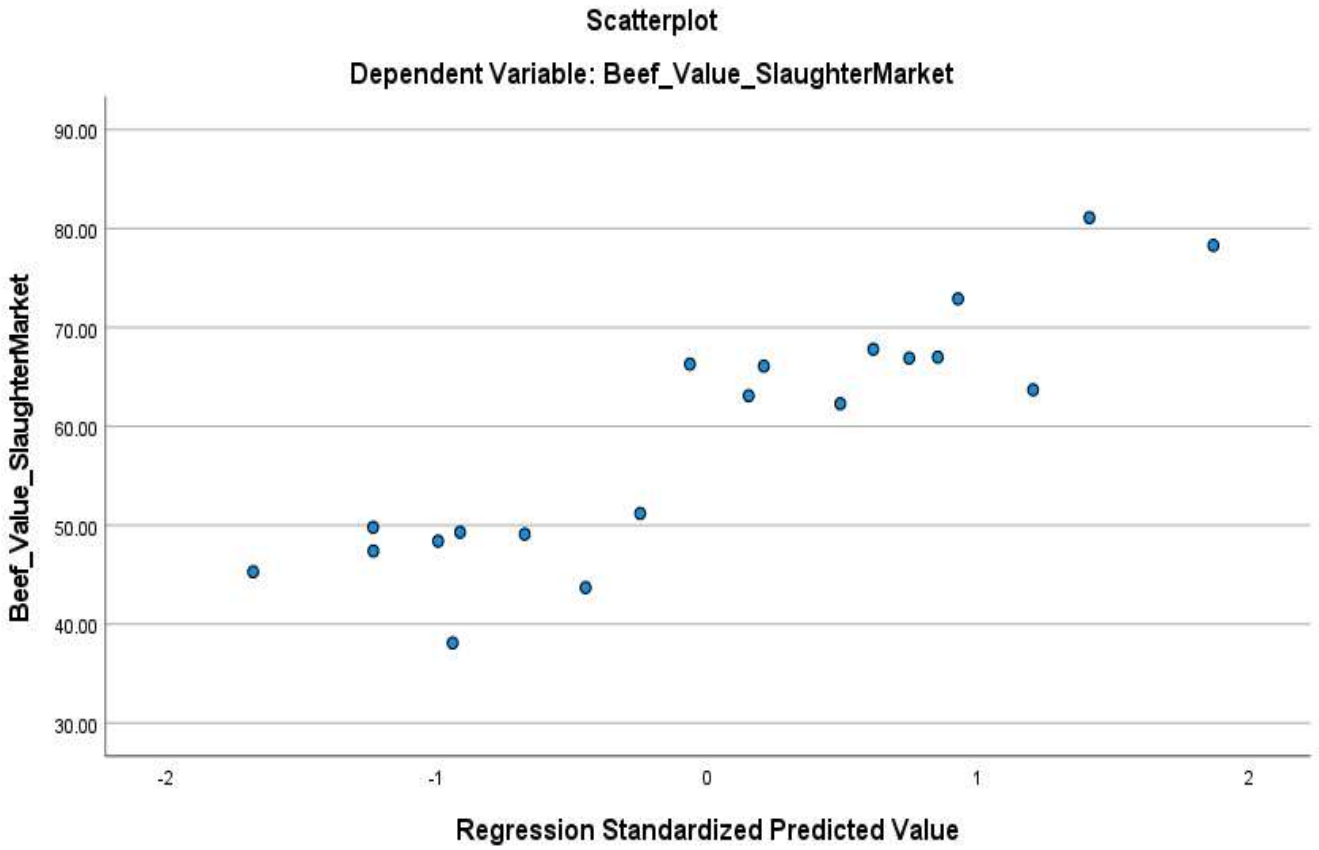
Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	40.3397	79.5109	58.8900	11.05780	20
Residual	-10.37829	8.14397	.00000	5.28689	20
Std. Predicted Value	-1.678	1.865	.000	1.000	20
Std. Residual	-1.494	1.172	.000	.761	20

a. Dependent Variable: Beef_Value_SlaughterMarket




Scatterplot
Dependent Variable: Beef_Value_SlaughterMarket
Beef_Value_SlaughterMarket
90.00
80.00
70.00
60.00
50.00
40.00
30.00
-1.5
-1.0
-0.5
0.0
0.5
1.0
1.5
Regression Standardized Residual



Model Summary: The model summary indicates that the adjusted R-squared is 0.689, which means that approximately 68.9% of the variability in the Beef_Value_SlaughterMarket can be explained by the model with the given predictor variables (AvgTemp, BeefConsumption_US, Sorghum, Beef_Production_BillionPounds, Barley, Maize, and SoyaBeans). The model's standard error of the estimate is 6.83518, which reflects the average distance that the observed values fall from the regression line.

ANOVA: The ANOVA table shows that the model is statistically significant at a 0.002 level. This means that there is a significant relationship between the dependent variable (Beef_Value_SlaughterMarket) and the predictor variables. The F-value of 7.013 indicates that the model is a good fit to the data, as it is significantly different from a model with no predictors.

Coefficients: The coefficients table provides information about the relationship between each predictor variable and the dependent variable (Beef_Value_SlaughterMarket).

BeefConsumption_US: The coefficient is -7.135, with a p-value of 0.008, indicating a significant negative relationship between BeefConsumption_US and Beef_Value_SlaughterMarket. As BeefConsumption_US increases by 1 unit, the Beef_Value_SlaughterMarket decreases by 7.135 units, holding other variables constant.