Regression- All Variables

Variables Entered/Removed^a

| Model | Variables Entered | Variables Removed | Method |
|-------|---|----------------------|--------|
| 1 | AvgTemp, BeefConsumpt ion_US, Sorghum, Beef_Productio n_BillionPound s, Precipitation, Barley, Maize, SoyaBeans | | Enter |

a. Dependent Variable: Beef_Value_SlaughterMarket

b. All requested variables entered.

Correlations

| | | | | relations | | | | | | |
|---------------------|-----------------------------------|--------------------------------|------------------------|---------------------------------------|--------|-------|---------|-----------|---------------|---------|
| | | Beef_Value_SI aughterMarket | BeefConsumpt ion_US | Beef_Productio n_BillionPound s | Barley | Maize | Sorghum | SoyaBeans | Precipitation | AvgTemp |
| Pearson Correlation | Beef_Value_SlaughterMark et | 1.000 | 637 | 235 | .492 | .536 | .323 | .686 | .291 | .299 |
| | BeefConsumption_US | 637 | 1.000 | .567 | 451 | 165 | 018 | 185 | 170 | .002 |
| | Beef_Production_BillionPo unds | 235 | .567 | 1.000 | 182 | 092 | 191 | 011 | 204 | 006 |
| | Barley | .492 | 451 | 182 | 1.000 | .646 | .589 | .673 | .582 | 017 |
| | Maize | .536 | 165 | 092 | .646 | 1.000 | .816 | .874 | .642 | .089 |
| | Sorghum | .323 | 018 | 191 | .589 | .816 | 1.000 | .735 | .625 | .066 |
| | SoyaBeans | .686 | 185 | 011 | .673 | .874 | .735 | 1.000 | .458 | .351 |
| | Precipitation | .291 | 170 | 204 | .582 | .642 | .625 | .458 | 1.000 | 255 |
| | AvgTemp | .299 | .002 | 006 | 017 | .089 | .066 | .351 | 255 | 1.000 |
| Sig. (1-tailed) | Beef_Value_SlaughterMark et | 1 | .001 | .159 | .014 | .007 | .083 | <.001 | .106 | .100 |
| | BeefConsumption_US | .001 | | .005 | .023 | .243 | .470 | .218 | .237 | .496 |
| | Beef_Production_BillionPo unds | .159 | .005 | 42 | .221 | .349 | .210 | .482 | .194 | .491 |
| | Barley | .014 | .023 | .221 | 82 | .001 | .003 | .001 | .004 | .471 |
| | Maize | .007 | .243 | .349 | .001 | * | .000 | .000 | .001 | .354 |
| | Sorghum | .083 | .470 | .210 | .003 | .000 | - 22 | .000 | .002 | .391 |
| | SoyaBeans | .000 | .218 | .482 | .001 | .000 | .000 | * | .021 | .065 |
| | Precipitation | .106 | .237 | .194 | .004 | .001 | .002 | .021 | | .139 |
| | AvgTemp | .100 | .496 | .491 | .471 | .354 | .391 | .065 | .139 | 7 |
| N | Beef_Value_SlaughterMark et | 20 | 20. | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| | BeefConsumption_US | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| | Beef_Production_BillionPo unds | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| | Barley | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| | Maize | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| | Sorghum | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| | SoyaBeans | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| | Precipitation | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| | AvgTemp | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |

Model Summaryb

| Model | R | R Square | | | | Change Statistics | | | | | | |
|-------|-------|----------|----------------------------|-------------------------------|--------------------|-------------------|-----|-----|---------------|--|--|--|
| | | | Adjusted R quare Square | Std. Error of the Estimate | R Square Change | F Change | df1 | df2 | Sig. F Change | | | |
| 1 | .902ª | .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. |
|---------|------------|-------------------|----|-------------|-------|-------------------|
| Model 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

| | | Unstandardized Coefficients | | Standardized Coefficients | | | 95.0% Confidence Interval for B | | Collinearity Statistics | |
|-------|-------------------------------|-----------------------------|------------|------------------------------|--------|------|---------------------------------|-------------|-------------------------|-------|
| Model | | В | Std. Error | Beta | t | Sig. | Lower Bound | Upper Bound | Tolerance | VIF |
| 1 | (Constant) | 161.967 | 151.754 | | 1.067 | .309 | -172.042 | 495.975 | | |
| | BeefConsumption_US | -7.256 | 2.304 | 656 | -3.149 | .009 | -12.328 | -2.184 | .389 | 2.568 |
| | Beef_Production_BillionPounds | .812 | 2.124 | .072 | .382 | .710 | -3.863 | 5,486 | .481 | 2.080 |
| | Barley | 001 | .001 | 342 | -1.484 | .166 | 003 | .001 | .319 | 3.139 |
| | Maize | .000 | .000 | 225 | 615 | .551 | 001 | .001 | .126 | 7.933 |
| | Sorghum | .000 | .001 | 138 | 505 | .624 | 002 | .001 | .227 | 4.407 |
| | SoyaBeans | .004 | .001 | 1.018 | 2.652 | .023 | .001 | .007 | .115 | 8.709 |
| | Precipitation | 1.007 | 1.287 | .160 | .783 | .450 | -1.826 | 3.840 | .407 | 2.457 |
| | AvgTemp | .101 | 2.388 | .007 | .042 | .967 | -5.154 | 5.356 | .546 | 1.833 |

a. Dependent Variable: Beef_Value_SlaughterMarket