

Dairy Sector in Uganda

19th November 2018

1. Descriptives

Table 1: Basic Descriptives of Value Chain

| | mean | sd |
|------------------------------|-------|------|
| Farmers (HH Head) | | |
| Number of Observations | 1,101 | |
| Male | 77% | |
| Some Education | 66.5% | |
| Completed Primary | 17.9% | |
| At Least 10 Years Experience | 80% | |
| Traders | | |
| Number of Observations | 541 | |
| Male | 99% | |
| Some Education | 79% | |
| Completed Primary | 21% | |
| Years Experience in Dairy | 3.1 | 3.71 |
| MCCs | | |
| Number of Observations | 55 | |
| Male | 85% | |
| Some Education | 100% | |
| Completed Primary | 60% | |
| MCC Manager | 76% | |
| Years Experience in Dairy | 3.6 | 4.5 |

2. Farmers

Table 2: Dairy Farmers

| | count | mean | sd |
|--|-------|-----------|---------|
| Household Members | 1,101 | 7.3 | 3.3 |
| HH Head Age | 983 | 49 | 13.6 |
| HH Head Married | 999 | 87.7% | |
| HH Head Anglican | 1,101 | 36% | |
| HH Head Pentecostal | 1,101 | 43% | |
| Distance of homestead to nearest... | | | |
| ...tarmac road | 1,101 | 101.3 | 274.9 |
| ... murram road | 1,101 | 11.1 | 94.7 |
| ...milk collection center | 1,101 | 123.7 | 314.9 |
| ... milk shop | 1,101 | 217.9 | 406.0 |
| ... neighbor | 1,101 | 1.3 | 30.1 |
| ...market | 1,101 | 22.4 | 126.1 |
| ...trading center | 1,101 | 11.1 | 89.8 |
| Distance of homestead to house of village chairman | 1,101 | 18.0 | 126.5 |
| Good Cellular reception | 1,039 | 45.5% | |
| <i>Main Income</i> | | | |
| Dairy | 1,101 | 66.7% | |
| Crops | 1,101 | 25.4% | |
| <i>Household</i> | | | |
| Rooms | 1,100 | 2.9 | 1.3 |
| Solar Power | 1,095 | 80% | |
| Iron Roof | 1,100 | 62% | |
| <i>Land (Acres)</i> | | | |
| Grazing Area | 1,057 | 41.2 | 54.2 |
| Crop Area | 1,091 | 5.8 | 12.1 |
| <i>Cattle</i> | | | |
| Local cows owned | 1,096 | 8.5 | 14.4 |
| Price of local cow | 685 | 1,132,313 | 273,819 |
| Local heifers | 1,087 | 5.0 | 8.0 |
| Price of local heifer | 685 | 793,591 | 214,111 |
| Local calves owned | 1,091 | 4.1 | 5.9 |
| Price of a local calf | 699 | 305,042 | 108,091 |
| Improved cows | 1,098 | 5.7 | 8.6 |
| Price of improved cow | 724 | 1,526,423 | 427,297 |
| Improved heifers | 1,096 | 3.3 | 5.9 |
| Price of improved heifer | 545 | 1,030,239 | 341,234 |
| Improved calves | 1,094 | 3.3 | 5.8 |
| Price of improved calf | 589 | 425,586 | 149,683 |
| Current Total herd size (cows+heifers+calves) | 1,077 | 29.3 | 34.1 |
| Total herd size (cows+heifers+calves) 1 year ago? | 1,046 | 30.7 | 40.7 |
| How many of these were improved? | 1,013 | 9.4 | 19.8 |

Table 3: Dairy Farmers

| | Dry Season | | | Rainy Season | | | T-test |
|------------------------------|------------|--------|--------|--------------|--------|---------|----------|
| | count | mean | sd | count | mean | sd | p-value |
| Cows Milked | 1,086 | 4.4 | 6.3 | 1,091 | 4.3 | 6.4 | 0.61 |
| Cows Older than 8 Years | 749 | 1.6 | 2.7 | 788 | 1.3 | 2.5 | 0.002*** |
| Liters Produced | 787 | 2.5 | 2.2 | 823 | 3.4 | 2.5 | 0.00*** |
| Exotics Milked | 1,089 | 2.9 | 5.4 | 1,089 | 3.1 | 5.1 | 0.03** |
| Exotics Older than 8 Years | 570 | 0.9 | 2.3 | 603 | 0.9 | 2.5 | 0.51 |
| Liters Produced | 580 | 4.7 | 4.1 | 615 | 6.4 | 5.2 | 0.00*** |
| Price per Liter | 574 | 888.8 | 222.2 | 613 | 690.9 | 236.7 | 0.00*** |
| Lowest Price | 964 | 821.1 | 217.2 | 1,045 | 669.6 | 238.2 | 0.00*** |
| Highest Price | 963 | 970.6 | 218.5 | 1,046 | 8.11.2 | 235.9 | 0.00*** |
| Amount Sold Per Day | 975 | 9.5 | 11.3 | 1,042 | 14.2 | 15.8 | 0.00*** |
| Total Average Income Per Day | 370 | 6268.8 | 5053.7 | 387 | 8259.6 | 40628.4 | 0.34 |
| Own Consumption Per Day | 983 | 3.1 | 1.5 | 1,043 | 3.4 | 1.5 | 0.00*** |
| Amount Given Out Per Day | 969 | 0.6 | 1.2 | 1,024 | 0.8 | 1.3 | 0.00*** |
| Amount Feed Calves Per Day | 481 | 0.8 | 1.2 | 507 | 0.9 | 1.3 | 0.03** |
| Amount Processed Per Day | 933 | 1.3 | 1.7 | 995 | 1.7 | 1.8 | 0.00*** |

Table 4: Dairy Farmers

| | count | mean | sd |
|--|-------|--------|--------|
| Sales | | | |
| In last 7 days sold milk to... | | | |
| ...Neighbor/direct retail | 1,101 | 35.7% | |
| ...Trader that sells as retail | 1,101 | 9.2% | |
| ...Trader that sells to MCC | 1,101 | 23.6% | |
| ...Trader that sells to milk shop | 1,101 | 3.2% | |
| ...Transporter that retails | 1,101 | 1% | |
| ...Transporter that supplies MCC | 1,101 | 8.6% | |
| ...Transporter that supplies milk shop | 1,101 | 1.5% | |
| ...Direct to MCC | 1,101 | 9.8% | |
| ...Direct to milk shop | 1,101 | 2.4% | |
| Sales to Neighbors... | | | |
| Number Transactions in Last 7 days | 384 | 5.8 | 2.5 |
| Number of Buyers | 371 | 3.1 | 2.5 |
| Price Received | 390 | 906.7 | 205.7 |
| Liters Sold | 385 | 33.7 | 147.9 |
| HH Head Decided | 382 | 85.1% | |
| HH Head Sold | 360 | 80.3% | |
| Cash Payment | 394 | 98.7% | |
| Payment Daily | 393 | 34.3% | |
| Payment Monthly | 393 | 30.8% | |
| No Agreement | 389 | 53% | |
| Years Selling to this customer | 383 | 2.9 | 3.8 |
| Never Rejected | 74.5% | | |
| Pay Premium | 391 | 9.4% | |
| Assist With.. | | | |
| Training | 87 | 11.5% | |
| Inputs | 87 | 79% | |
| Credit | 87 | 15% | |
| Milk boiled | 393 | 11.1% | |
| Sales to Traders to Retail... | | | |
| Number Transactions in Last 7 days | 99 | 5.9 | 2.1 |
| Number of Buyers | 99 | 1.9 | 2.8 |
| Price Received | 100 | 782 | 215.6 |
| Liters Sold | 100 | 76.3 | 226.8 |
| HH Head Decided | 99 | 87.9% | |
| HH Head Sold | 94 | 87% | |
| Cash Payment | 100 | 98% | |
| Payment Daily | 97 | 5% | |
| Payment Weekly | 97 | 72.2% | |
| No Agreement | 100 | 58% | |
| Years Selling to this customer | 99 | 2.7 | 2.7 |
| Never Rejected | 89 | 77.5% | |
| Pay Premium | 100 | 7% | |
| Assist With.. | | | |
| Training | 10 | 20% | |
| Inputs | 10 | 30% | |
| Credit | 10 | 70% | |
| Uses Boda Boda | 101 | 61.4% | |
| Jerry Can container | 101 | 88.1 | |
| Farmer Paid Transport | 101 | 5.9% | |
| Amt paid | 6 | 15,550 | 22,804 |

Table 5: Dairy Farmers

| | count | mean | sd |
|------------------------------------|-------|-------|-------|
| Sales | | | |
| Sales to Traders to MCC... | | | |
| Number Transactions in Last 7 days | 260 | 6.3 | 1.8 |
| Number of Buyers | 255 | 1.6 | 1.9 |
| Freq of Payment? | 240 | 2. | 1.9 |
| Liters Sold | 258 | 60.8 | 168.7 |
| HH Head Decided | 254 | 94.9% | |
| HH Head Sold | 245 | 91.8% | |
| Cash Payment | 259 | 99.2% | |
| Payment Daily | 255 | 1.9% | |
| Payment Weekly | 255 | 85.9% | |
| No Agreement | 259 | 47.5% | |
| Years Selling to this customer | 253 | 2.5 | 2.4 |
| Never Rejected | 237 | 72.1% | |
| Pay Premium | 259 | 7.3% | |
| Assist With.. | | | |
| Training | 24 | 12.5% | |
| Inputs | 24 | 37.5% | |
| Credit | 24 | 58.3% | |
| Uses Boda Boda | 260 | 92.7% | |
| Jerry Can container | 260 | 85 | |
| Farmer Paid Transport | 259 | 5.8% | |
| Amt paid | 14 | 5,977 | 2,642 |
| Sales to Traders to Milk Shops... | | | |
| Number Transactions in Last 7 days | 36 | 6.4 | 1.7 |
| Number of Buyers | 36 | 1.6 | 0.9 |
| Price | 36 | 788.9 | 189.4 |
| Liters Sold | 36 | 71.6 | 200.5 |
| HH Head Decided | 33 | 93.9% | |
| HH Head Sold | 33 | 87.9% | |
| Cash Payment | 36 | 100% | |
| Payment Daily | 36 | 5.6% | |
| Payment Weekly | 36 | 63.9% | |
| No Agreement | 36 | 36.1% | |
| Years Selling to this customer | 34 | 3.3 | 5.8 |
| Never Rejected | 27 | 59.2% | |
| Pay Premium | 36 | 8.3% | |
| Assist With.. | | | |
| Training | 2 | 0% | |
| Inputs | 2 | 0% | |
| Credit | 2 | 0% | |
| Uses Boda Boda | 36 | 88.9% | |
| Jerry Can container | 36 | 83.3% | |
| Farmer Paid Transport | 35 | 5.7% | |
| Amt paid | 1 | 8,000 | |

Table 6: Dairy Farmers

| | count | mean | sd |
|--|-------|-------|-------|
| Sales | | | |
| Sales to Transport Who Sells to MCCs... | | | |
| Number Transactions in Last 7 days | 95 | 6.7 | 1.0 |
| Number of Buyers | 93 | 1.4 | 2.2 |
| Price | 94 | 808.0 | 192.8 |
| Liters Sold | 92 | 66.0 | 199.4 |
| HH Head Decided | 93 | 98.9% | |
| HH Head Sold | 93 | 94.3% | |
| Cash Payment | 95 | 98.9% | |
| Payment Daily | 94 | 0% | |
| Payment Weekly | 94 | 80.8% | |
| No Agreement | 95 | 44.2% | |
| Years Selling to this customer | 95 | 2.6 | 2.8 |
| Never Rejected | 93 | 67.7% | |
| Pay Premium | 94 | 8.5% | |
| Assist With.. | | | |
| Training | 14 | 14.3% | |
| Inputs | 14 | 21.4% | |
| Credit | 14 | 21.4% | |
| Uses Boda Boda | 94 | 81.9% | |
| Jerry Can container | 91 | 78.0% | |
| Estimated Transport Cost | 79 | 2,090 | 1515 |
| Milk Tested Lactometer | 91 | 90% | |
| Milk tested Alcohol | 87 | 83.7% | |
| Unable to Sell Milk in Last 30 days | 1,091 | 23.3% | |
| Number of Times Unable To Sell | 247 | 5.6 | 6.2 |
| No buyer to Sell to | 253 | 50.2% | |
| Food Safety/Animal Welfare | | | |
| Cows Milked Outside | 1,100 | 84.7% | |
| Milking Area Cleaned At Least Weekly | 1,100 | 38.6% | |
| Milking Area Never Cleaned | 1,100 | 31% | |
| Cleaned By Sweeping | 1,100 | 26% | |
| Cleaned by Moving Animals | 1,100 | 26.5% | |
| Udders Cleaned Before Milking | 1,096 | 37% | |
| Udders Cleaned with Cold Water | 406 | 58% | |
| Milking Cream Used | 1,092 | 13.7% | |
| No Treat Udders After Milking | 1,100 | 81% | |
| Let Cow Stand Before Releasing After Milking | 1,085 | 57.5% | |
| Milk Storage Containers | 1,100 | | |
| Glass | | 1.7% | |
| Plastic Jar | | 36.3% | |
| Plastic Bucket | | 52% | |
| Steel Bucket | | 14.3% | |
| Jerry Can | | 20.7% | |
| Steel Can | | 5.6% | |
| Farmer Washes Hands with Soap Before Milking | 1,100 | 60.1% | |
| Wash Containers with Soap | 1,100 | 88.8% | 94.9% |
| Tick Problem (Scale 1-5) | 1,100 | 4.1 | 1.3 |
| East Coast Fever Problem (Scale 1-5) | 1,100 | 3.0 | 1.5 |
| Spray Cow with Acaricides | 1,100 | 96% | |
| Free Range Feeding | 1,100 | 78.7% | |
| Often or Always Problem Getting Water for Cattle | 1,100 | 38.0% | |

Table 7: Dairy Farmers

| | count | mean | sd |
|--|-------|---------|---------|
| Animal Health | | | |
| Vaccinated Cattle | 1,094 | 90.5% | |
| Vaccinated By Govt | 968 | 60.6% | |
| Distance to Vet Services (KM) | 953 | 17.5 | 15.5 |
| Distance to Vet Drugshop (KM) | 1,042 | 8.4 | 7.3 |
| Used Vet services in last 12 Months | 1,095 | 92.5% | |
| How Often | 891 | 3.7 | 3.7 |
| Cost of Vet Services in last 12 months | 888 | 534,345 | 681,068 |
| Receive training on animal health | 1,086 | 22% | |
| Training from Govt Extension Worker | 226 | 56.2% | |
| Labor | | | |
| Who in family Provides Labor for Cows | | | |
| Adult Male | 1,100 | 95.6% | |
| Adult Female | 1,100 | 21% | |
| Child Male | 1,100 | 7.5% | |
| Child Female | 1,100 | 2.8% | |
| Hours Spent By Adult Male... | | | |
| Milking in AM | 1,100 | 95.6% | |
| Milking in PM | 1,032 | 1.1 | 1.7 |
| Marketing Milk | 1,035 | 0.5 | 0.8 |
| Prep Feed and Feeding | 1,033 | 6.8 | 6.4 |
| Cleaning Shade and Utensils | 1,007 | 0.6 | 1.2 |
| Hours Spent By Adult Female... | | | |
| Milking in AM | 230 | 0.1 | 0.6 |
| Milking in PM | 230 | 0.05 | 0.2 |
| Marketing Milk | 229 | 0.3 | 0.8 |
| Prep Feed and Feeding | 229 | 1.0 | 2.2 |
| Cleaning Shade and Utensils | 228 | 0.7 | 0.6 |
| Hours Spent By Male Child... | | | |
| Milking in AM | 83 | 1.1 | 4.9 |
| Milking in PM | 83 | 0.4 | 0.7 |
| Marketing Milk | 82 | 0.3 | 0.7 |
| Prep Feed and Feeding | 78 | 3.2 | 3.8 |
| Cleaning Shade and Utensils | 82 | 0.7 | 0.8 |
| Hours Spent By Female Child... | | | |
| Milking in AM | 30 | 0.2 | 0.6 |
| Milking in PM | 31 | 0.03 | 0.1 |
| Marketing Milk | 29 | 0.2 | 0.6 |
| Prep Feed and Feeding | 30 | 0.7 | 2.3 |
| Cleaning Shade and Utensils | 31 | 0.8 | 0.8 |
| Hired Labor | 1,097 | 51.5% | |
| Hours Per Day | 561 | 8.8 | 3.4 |
| Cost Per Day | 563 | 3025.9 | 1784.4 |

Table 8: Dairy Farmers

| | count | mean | sd |
|--------------------------------------|-------|-------|------|
| Reason for Keeping Cattle | | | |
| Wealth | 1,100 | 88.1% | |
| Prestige | 1,100 | 29.8% | |
| To produce milk | 1,100 | 86.8% | |
| Produce meat | 1,100 | 15.6% | |
| Bride price | 1,100 | 6.6% | |
| | | | |
| Had Cows 10 Years Ago | 1,086 | 80% | |
| Years Dairy Farming | 218 | 4.4 | 5.5 |
| Exotic Cows Then | 838 | 2.0 | 6.1 |
| Local Cows Then | 796 | 25.9 | 21.3 |
| Average Liters Produced per Day Then | 847 | 18.3 | 24.3 |
| Liters Sold per Day Then | 922 | 9.7 | 28.0 |
| | | | |
| Livestock Assets | | | |
| Milking Shed | 1,085 | 12.7% | |
| Cattle Barn | 1,091 | 12.0% | |
| Feeding Boxes | 1,091 | 54.4% | |
| Steel Cans | 1,097 | 10.1% | |
| Num Steel Cans | 111 | 1.6 | 0.9 |
| Steel buckets | 1,089 | 23.6% | |
| Num Steel Buckets | 257 | 1.8 | 1.0 |
| Jerrycans | 1,098 | 64.6% | |
| Num jerrycans | 708 | 2.2 | 1.4 |
| Plastic Buckets | 1,098 | 80.7% | |
| Num Plastic Buckets | 887 | 1.7 | 0.9 |
| Mobile Phones | 1,097 | 1.9 | 1.2 |
| Motorbkes | 1,100 | 0.4 | 0.5 |
| Bikes | 1,100 | 0.8 | 0.5 |
| Cars | 1,100 | 0.04 | 0.3 |
| Radios | 1,099 | 0.8 | 0.6 |
| Water Pumps | 1,100 | 0.06 | 0.2 |
| Pangas | 1,096 | 1.8 | 1.1 |
| Wheelbarrows | 1,100 | 0.3 | 0.5 |
| Sickles | 1,099 | 0.5 | 0.7 |
| Hay Forks | 1,100 | 0.2 | 0.5 |
| Tarpaulins | 1,100 | 0.9 | 1.0 |
| Cutting Machines | 1,100 | 0.03 | 0.2 |
| Hosepipes | 1,100 | 0.08 | 0.3 |
| Sprayers | 1,100 | 1.0 | 0.5 |

Table 9: Dairy Farmers

| | count | mean | sd |
|---------------------------------|-------|-----------|-----------|
| Cooperative | | | |
| Member of Coop | 1,083 | 28% | |
| How Many Dairy Coops? | 304 | 0.4 | 0.5 |
| How Many Non-dairy Coops? | 302 | 0.8 | 0.6 |
| Access to Finance | | | |
| Access to Finance | 1,089 | 64.5% | |
| From Coop | 703 | 20.2% | |
| From bank | 703 | 20.3% | |
| From Friend | 703 | 40.1% | |
| Loan in Last Year | 694 | 38.4% | |
| Loan Amount | 265 | 1,637,434 | 2,074,769 |
| Invested in Milk Business | 267 | 37.1% | |
| Bought Improved Breed | 99 | 24% | |
| Bought Treatment for Animals | 99 | 49.5% | |
| Children Under 5 | | | |
| Child Under 5yrs in HH | 1,098 | 53.9% | |
| Still Breastfeed | 592 | 29.7% | |
| Drink Animal Milk | 589 | 91.5% | |
| Liters Drank in Last 7 days | 517 | 6.3 | 4.9 |
| Consumption in Last Week | | | |
| Maize | 1,110 | 98% | |
| Value | 1,045 | 24054.3 | 15471.5 |
| Milk | 1,110 | 96.8% | |
| Value | 1,041 | 20226.3 | 12214.3 |
| Millet | 1,110 | 16.2% | |
| Value | 170 | 10401.2 | 9692.1 |
| Rice | 1,110 | 46.3% | |
| Value | 501 | 11515.9 | 8240.1 |
| Cassava | 1,110 | 75.9% | |
| Value | 811 | 9851.0 | 8049.0 |
| Sweet Potatoes | 1,110 | 36.4% | |
| Value | 386 | 8236.8 | 77075 |
| Beans | 1,110 | 94.1% | |
| Value | 1,014 | 13662.7 | 9448.2 |
| Groundnuts | 1,110 | 46.8% | |
| Value | 500 | 7828.2 | 7697.2 |
| Fruits | 1,110 | 32.6% | |
| Value | 337 | 5173.3 | 4034.3 |
| Vegetables | 1,110 | 76.1% | |
| Value | 802 | 5283.7 | 4710.3 |
| Sugar/Salt | 1,110 | 94.7% | |
| Value | 1,038 | 5047.9 | 41.68.5 |
| Oil | 1,110 | 89.5% | |
| Value | Bongo | 1,110 | 55.1% |
| Value | 548 | 9246.3 | |
| Soap | 1,110 | 99.6% | |
| Value | 1,091 | 4410.8 | 1991.2 |
| Airtime | 1,110 | 93.3% | |
| Value | 996 | 8207.1 | 7365.4 |
| Total HH Consumption Value | 1,101 | 98,784.1 | 46,101.8 |

3. Traders

Table 10: Dairy Traders

| | count | mean | sd |
|--|-------|-------|-------|
| Trade Only | 540 | 30% | |
| Transport Only | 540 | 44% | |
| Trade and Transport | 540 | 26% | |
| Trade Other Dairy Products | 541 | 7% | |
| Trade Other Products | 541 | 10% | |
| Number of Competitors when First Started | 482 | 10.3 | 13.2 |
| Number of Competitors Now | 471 | 15.3 | 18.7 |
| Traders: Never Make Agreements with Others | 301 | 51% | |
| Transport: Never Make Agreements with Others | 377 | 67% | |
| Always Share Info with Others | 537 | 50% | |
| Part of Cooperative | 540 | 40% | |
| Received Training on Storage and Handling | 540 | 44% | |
| <i>Dry Season</i> | | | |
| Price of Milk | 541 | 1056 | 176.7 |
| Bought Milk from Farmers | 541 | 94% | |
| Number of Suppliers | 516 | 5.2 | 5 |
| Liters Collected Per Day | 524 | 106.6 | 99.3 |
| Liters Sold Per Day To... | | | |
| ... Shops | 526 | 3.9 | 29.1 |
| ... Individuals | 526 | 1.4 | 8.3 |
| ... Cooperative Collection Centers | 524 | 37.0 | 60.2 |
| ...Private Collection Centers | 526 | 42.7 | 59.1 |
| ...Processors | 526 | 5.0 | 30.9 |
| ...Institutions | 527 | 0.3 | 4.5 |
| ...Restaurants | 527 | 0.5 | 5.3 |
| <i>Rainy Season</i> | | | |
| Price of Milk | 541 | 716.9 | 204.4 |
| Bought Milk from Farmers | 541 | 97% | |
| Number of Suppliers | 533 | 7.0 | 10 |
| Liters Collected Per Day | 538 | 187.1 | 141.6 |
| Liters Sold Per Day To... | | | |
| ... Shops | 537 | 3.8 | 18.0 |
| ... Individuals | 537 | 2.1 | 10.5 |
| ... Cooperative Collection Centers | 535 | 53.2 | 77.2 |
| ...Private Collection Centers | 537 | 70.3 | 81.9 |
| ...Processors | 537 | 7.9 | 34.6 |
| ...Institutions | 536 | 0.8 | 6.5 |
| ...Restaurants | 536 | 0.7 | 5.5 |

Table 11: Dairy Traders

| | count | mean | sd |
|--|-------|-------|------|
| Milk Sometimes Rejected | 540 | 45% | |
| Reason for Always Rejected.... | | | |
| ...Too Late | 51 | 41% | |
| ... Low Lactose | 51 | 37% | |
| Rejected Milk Given Away | 56 | 41% | |
| <i>Supplies Owned</i> | | | |
| 50L Milk Cans | 541 | 0.88 | 1.4 |
| 25L Milk Cans | 541 | 0.10 | 0.50 |
| 10L Milk Cans | 541 | 0.10 | 0.8 |
| Jerrycans | 541 | 6.58 | 5.25 |
| Motorbikes | 541 | 0.82 | 0.65 |
| Bicycles | 541 | 0.56 | 0.57 |
| Mobile | 541 | 1.0 | 0.58 |
| Measuring Cups | 541 | 1.1 | 6.5 |
| Sieve | 541 | 1.1 | 1.0 |
| <i>Transport</i> | | | |
| Use Motorbike | 538 | 71% | |
| Use Bicycle | 538 | 27% | |
| Transport Capacity | 535 | 164.1 | 86.0 |
| Transport Capacity with Motorbike | 383 | 193.7 | 77.9 |
| Transport Capacity with Bicycle | 144 | 89.0 | 50.0 |
| <i>Delivery</i> | | | |
| To Individuals | 540 | 49.4% | |
| To Cooperatives | 540 | 28.0% | |
| Years Experience with This Type of Buyer | 531 | 2.7 | 2.6 |
| <i>Testing</i> | | | |
| Milk Tested | 540 | 99.4% | |
| Lactometer Test | 537 | 99.8% | |
| Alcohol test | 537 | 97.6% | |

Table 12: Dairy Traders

| | Traders Only | | | Transport Only | | | T-Test |
|---|--------------|-------|------|----------------|-------|---------|----------|
| | count | mean | sd | count | mean | sd | p-value |
| Doesn't count those who reported doing both trading and transport | | | | | | | |
| <i>Payment</i> | | | | | | | |
| Paid by Cash | 158 | 98.7% | | 233 | 99.6% | 0.35 | |
| Paid Weekly | 158 | 72.8% | | 233 | 60.5% | 0.012** | |
| Oral Agreements of Sales | 160 | 47.5% | | | | | |
| Written Agreements of Sales | 160 | 15% | | | | | |
| No Agreements of Sales | 160 | 37.5% | | | | | |
| Oral Agreements of Buying | 160 | 49.4% | 236 | 55.5 | 0.23 | | |
| Written Agreements of Buying | 160 | 11.2% | 236 | 6.8% | 0.12 | | |
| No Agreements of Buying | 160 | 39.4% | 236 | 37.7% | 0.74 | | |
| Cost of Transport (UGX)/Liter | 158 | 122.7 | 56.7 | 228 | 69.2 | 43.6 | 0.00*** |
| Volume (Liters of Milk) | 155 | 145.8 | 71.7 | 235 | 135.9 | 131.4 | 0.39 |
| Distance (km) | 155 | 9.5 | 11.3 | 233 | 6.6 | 7.3 | 0.002*** |

Table 13: Dairy Traders

| | count | mean | sd |
|--------------------------------|-------|-----------|-----------|
| <i>Hygiene</i> | | | |
| Wash Containers | 541 | 99.4% | |
| With Soap | 538 | 97% | |
| Dry Containers | 538 | 99% | |
| <i>Records</i> | | | |
| Keep Records | 540 | 90.2% | |
| Access to Finance | 540 | 66.2% | |
| Loan in Last Year | 540 | 32.4% | |
| Amount of Loan | 175 | 1,334,423 | 1,418,193 |
| Loan Invested in Milk Business | 175 | 64.6% | |

4. MCCs

Table 14: Milk Collection Centers

| | count | mean | sd |
|---|-------|--------|--------|
| Type of MCC | | | |
| Private | 55 | 58% | |
| Cooperative | 55 | 24% | |
| Sub-collection From Larger MCC | 55 | 47% | |
| MCC has other Collection Points | 29 | 41% | |
| Number of Other Collection Points | 12 | 3.6 | 1.6 |
| Capacity of Other Collection Points | 11 | 7900 | 6113.5 |
| Number of Workers | 55 | 3.2 | 2.7 |
| Buy from Members Only | 55 | 20% | |
| Number of non-members who supply per day | 42 | 28.3 | 28.0 |
| Supply (liters) from non-members per day | 41 | 2184.6 | 2248.1 |
| Number of members who supply per day | 53 | 26.1 | 43.7 |
| Supply (liters) from members per day | 39 | 3041.6 | 7218.1 |
| Pays Premium for Quality Milk (Sometimes or Always) | 55 | 33% | |
| Pays Premium for Large Quantities of Milk(Sometimes or Always) | 55 | 38% | |
| Total Capacity of MCC (L) | 55 | 5370 | 5166.3 |
| Usage (%) in Dry Season | 55 | 26.8% | 20.2% |
| Usage (%) in Rainy Season | 55 | 62.1% | 32.0% |
| Payment | | | |
| Pay on Delivery | 55 | 14% | |
| Pay Daily | 55 | 2% | |
| Pay Weekly | 55 | 71% | |
| Pay Twice per Month | 55 | 33% | |
| Pay Monthly | 55 | 2% | |

Table 15: Milk Collection Centers

| | count | mean | sd |
|--|-------|-------|------|
| Selling Milk | | | |
| Wholesalers | 55 | 24% | |
| Brokers | 55 | 5% | |
| Processors | 55 | 71% | |
| Agent of Processor | 55 | 9% | |
| Agent of Cooperative | 55 | 0% | |
| Independent Trader | 55 | 5% | |
| Retail Shop | 55 | 0% | |
| Milk Shop | 55 | 2% | |
| Institution | 55 | 0% | |
| JESA Dairy | 39 | 38.5% | |
| Brookside Dairy | 39 | 41.0% | |
| Ever Unable to Sell Milk | 55 | 38% | |
| Number of Times Unable to Sell Milk | 20 | 4.2 | 4.4 |
| Choices on Who to Sell to Available for Farmers... | | | |
| A lot | 55 | 45.5% | |
| A little | 55 | 45.5% | |
| None | 55 | 9% | |
| Years Experience in MCC | 3.6 | 4.5 | |
| Total Capacity of MCC when First Started | 50 | 3423 | 1371 |
| Num of Suppliers when First Started | 47 | 28.4 | 33.3 |
| Avg Liters Per Day when First Started | 49 | 1649 | 1321 |
| Average Price in Last Dry Season | 48 | 1105 | 130 |
| Average Price in Last Rainy Season | 50 | 766 | 168 |
| Average Daily Collection Last Dry Season | 46 | 1828 | 1985 |
| Average Daily Collection Last Rainy Season | 51 | 3473 | 4036 |
| Sell in Kampala Suburbs | 55 | 80% | |

Table 16: Milk Collection Centers

| | mean | sd | |
|--|-------|--------|-------|
| <i>Supplies Owned</i> | | | |
| Milk Cans | 5.3 | 6.9 | |
| Jerrycans | 2.2 | 6.1 | |
| Scale | 0.4 | 1.0 | |
| Lactometer | 2.2 | 1.1 | |
| Warehouse | 0.7 | 0.5 | |
| Milk Trucks | 1.6 | 1.1 | |
| Mobile | 0.8 | 0.9 | |
| Motorbikes | 0.3 | 0.6 | |
| <i>Services Offered</i> | | | |
| Training on Milk Prod | 31% | | |
| Training on Milk Hygiene | 47% | | |
| Credit/Loans | 67% | | |
| Equipment to Suppliers | 16% | | |
| Milk Cans | 24% | | |
| Vet Services | 16% | | |
| Transport Services | 9% | | |
| Milk Coolers | 9% | | |
| Cross-brd Cows | 2% | | |
| Medicines | 15% | | |
| <i>Why Farmers Choose This MCC</i> | | | |
| Always Purchase | 29% | | |
| Higher Prices | 42% | | |
| Access to Loans | 38% | | |
| Buyer Collects Milk | 13% | | |
| Provide Advice/training | 33% | | |
| Timely Payments | 67% | | |
| No Other Choice | 7% | | |
| No Quality Checks | 0% | | |
| <i>Testing Milk</i> | | | |
| Visually | 49% | | |
| Lactose Test | 100% | | |
| Alcohol Test | 96% | | |
| n=55 | | | |
| | count | mean | sd |
| Transport to Kampala | 55 | 80% | |
| By Own Truck | 44 | 77% | |
| By Hired Truck | 44 | 14% | |
| By Processors Truck | 44 | 14% | |
| Current Cost of Transporting 1 Liter | 47 | 75.6 | 31.7 |
| Cost of Transporting to Buyer on Average Day | 43 | 214274 | 84795 |