REPORT ON CONVERSION FACTORS

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# Introduction

Most farmers in the country use various non-standard units of measure. They also harvest and use the crops at various stages of their growth. This introduces problems in the estimation of yield and production. The various measuring units and crop conditions and states have to be converted to standard ones.

The aim is to use these units to establish standard measurements through calibration, in order to simplify the work of estimating quantities of foodstuffs consumed, bought or sold, especially in rural areas where weighing facilities do not exist.

Three types of conversion factors have to be made, namely:

1. Measurements - quantities and volumes; and
2. Crop condition and state
3. Conversion from biological to economic yield

# Description of the Conversion Factors

## Measurements

Quantities and Volumes

Measurements including both quantities and volumes. A number of Local Units of Measurement for quantities and volumes are used in each locality to measure commodities. These include Basins, Tins (kerosene-debe, Kimbo or Margarine), baskets, cups, heaps, bunches and clusters, etc. In the Final Report on Conversion Factors and Regional Price Indices to the Ministry of Finance and Planning, in 1993 P.K. Kayiso referred to these as **Horizontal Conversion Factors.**

The first problem, therefore, is to identity as comprehensively as possible, these various measurements of quantities and volumes in each district or locality. The best way to identify these quantities and volumes may be through an identification of the data items for which, conversion factors on measurements items are needed e.g. Holders’ Estimates of Production.

## Holders’ Estimates of Production

In yield estimation, the holder is asked to give an estimate of the production of various crops. These estimates are to be given in local units such as sacks, tins, baskets, heaps, bunches, etc, and sometimes under different crop conditions and states. Therefore, a conversion factor is needed for each measurement unit for each crop. The crop conditions and states are discussed below.

For example, coffee, maize, beans are normally measured in sacks or tins, bananas are measured in bunches or clusters, while sweet potatoes may be measured in baskets, tins or heaps.

## Agricultural Inputs

The holder is sometimes asked the quantity or volumes of any agricultural inputs used. Again, these are likely to be given in local units. These include such things as wheelbarrows of manure; lorry-loads of coffee-husks, tins of beans, cups of groundnuts, baskets of simsim, etc. Again, a conversion factor will be needed for each measurement unit for each input item.

Clear identification is needed of the most commonly used units for each input before proceeding with the determination of the conversion factors.

Fortunately, many of the measurement tools needed for yield estimation also apply to inputs. For example, you could have tins or baskets of beans, maize or groundnuts. Thus, these need not be estimated twice. On the other hand, the information is in some cases asked well after the use of input, and in some of these cases, it may be impossible to obtain and weigh representative samples, e.g., a farmer may have used a lorry–load of coffee husks.

For the Uganda Census of Agriculture (UCA), the quantities of inputs used will not be asked.

## Yield Estimation in General

During the crop-cutting for yield estimation, the condition in which the crop is harvested is often different from the standard condition and state. Hence, arrangements have to be made to obtain the required data.

## Crop Condition and State

When yield estimation is made, the **Condition** of the crop has to be given, i.e., whether wet or dry. Obviously, there is a complication as there are bound to be various stages of wetness or dryness. The **State** of the crop is also required. This indicates whether the crop is in shell, without shell, with stalk, without stalk, or in the cob/head. Thus, there are a number of combinations and in all these situations; conversion factors to some standard condition and state are needed for each crop. Thus, identification is needed of the most common states of each crop. These seem to vary by district.

Again, Kayiso referred to the condition and state as **Vertical Conversion Factors.**

## Biological, Harvested and Economic Yields

The biological yield or production, which is a theoretical yield without allowing harvesting and threshing losses, is a “gross” yield or production. It is based on the assumption that all the produce will be harvested and that pre-harvest losses, which may have occurred, have been taken into account, while harvesting and post-harvest losses are non-existent. The harvested yield or production is the actual quantity of the produce obtained after harvesting the yield the farmer measures. Harvesting losses which may differ according to the harvesting method used (manual, machine, etc) have already been taken into account, while post-harvest losses are not. The produce may or may not have been cleaned, winnowed, etc, and generally, the moisture content is higher than the acceptable level. The economic yield or production is the actual quantity of the produce which reaches the customer. All types of losses; pre-harvest, harvesting, post-harvest including drying, processing, transport and storage losses, transport and storage losses have been deducted. The crop has been dried and moisture content brought to the right level. The produce has been threshed, winnowed, dehusked, shelled or otherwise, processed and prepared for sale or consumption. This concept of yield or production is the most useful from the point of view, not only of the economist, but also of the traders and the consumers. The concept of Yield Harvested and rate is that when multiplied by area harvested, would give the harvested production at the farm gate.

In crop cutting from sample sub-plots, what is determined is the biological yield that is everything that grows on the sub-plots

# Description of Common Local Units of Measurement

The following observations, which may be useful for further work on the subject, were made by P.K. Kayiso.

## Metal Containers (Tins)

Tins used are empty containers that were once filled with factory made cooking oil, butter, canned chicken/meat, or paraffin (kerosene) and are now used for measuring food consumer items for commercial purposes, i.e., retail or wholesale.

The most common tin sizes used especially at the retail level are:

* ¼ kg Margarine tin, or ¼ kg glass for smaller quantities;
* ½ kg Kimbo or Margarine tins; ½ litre plastic mug or cup
* I kg Kimbo, Margarine or Cowboy tins;
* 2 kg Cowboy tin (also called kolo-kolo in Eastern)
* 4-5 litre oil tin (also known as kolo-kolo in Eastern)
* 20 litre cooking oil or 20 litre paraffin (kerosene) tin;

## Baskets

The local craft industry produces three distinct types of baskets namely:

**3.2.1 Shopping Basket *(Ekikapu)***

This is made to plaited palm leaves, where palm leaves are interwoven in a format comparable to the warp and weft of woven cloth. This type of basket is very light when empty and ¼ a kg weight thereof may be used for a weight of as much as 20 or 30 kgs of beans, peas, etc. This type of basket is commonly used for shopping.

**3.2.2 Storage Basket *(Ekisero)***

This is made of thick fibres of certain plant stems or leave stalks, and is interwoven in a wicker-work format, usually in different sizes and shapes, upside conical, flat-bottomed, etc. It is generally mostly used for storing produce or, in rare cases, transporting fresh or dried fish on trucks or bicycles. The capacity of *ekisero* varies widely, but may y carry crops as heavy as 60 or 100 kgs.

**3.2.3 Measuring Basket *(Ekibo)***

This is a thick-walled, coiled type, in which a spiral is sewn together with lengths of banana leaf stalk fibres. For this type of craft, an iron awl is used, often with a knife blade at the end *(olukato)*. The measuring type of basket has been classified into four sizes, namely, 2 kg, 5-8 kg, for very small; 10 kg for medium; and 20 kg for large, respectively, for ease of operation and estimation.

## For Wholesale

At the wholesale stage, the following containers are generally used:

* **100 kg** sack
* **60 kg** sack
* **20 litre** oil/paraffin tin
* **50 kg** sack

## Unspecified Units

These include:

* Heap
* Bundle
* Scoop

These, unfortunately, vary widely by district and even locality.

## Other General Observations

The following observations are worth noting with respect to the application of Local Units of Measurement, namely that:

**3.5.1** Some ‘money hungry’ retailers carefully reduce the size of the units, especially tins, in order to maximise on profit earnings. This is especially common with the 20 litre oil/paraffin tins.

* + 1. Possibly through long use or frequent handling, very old tins give, on the average, slightly less weight than new ones.
    2. Small sized tins and other related containers are generally mostly used for retail transactions, while large ones like 20 litre tins, baskets, sacks, etc, are used for wholesale transactions.
    3. Village or rural trade transactions usually involve the use of 20 litre tins, sacks and baskets with variable sizes. For practical convenience and for purposes of standardisation, four basket sizes have been identified with regard to this type of unit, namely 20, 10, 5 and 2 kg baskets, respectively, and 100, 60 and 50 kg sacks for bags. In other words, for wholesale transactions and the transportation of produce, these units were found to have been adopted among nearly all produce dealers.
    4. Although the majority of units used for retail transactions are common throughout the country, there are a limited number that are confined to regions.
    5. With the exception of units with widely variable sizes like heaps, bundles, scoops, etc, receptacles like basket standardisation of measurements can be effected for easy and quick estimation as well as for operational convenience.
    6. As mentioned above, the non-container local unit measurements i.e. heaps, bundles and scoops, are highly variable and non-exhaustive. These units vary by district and locality and, from season to season, i.e., large when the ‘market supply’ is favourable, but small when demand is very high.

# Available Data on Conversion Factors

## Introduction

In the Report on Conversion Factors and Price Indices in 1993, P.K. Kayiso gives some conversion factors.

During the National Household Surveys, the Uganda Bureau of Statistics (UBOS) built on Kayiso’s work to collect and compile some Conversion Factors for some measurements.

Unfortunately, all these conversion factors are not comprehensive, while some were collected at the marketing stage rather than at the farm gate. Data collected in rural markets may be biased for some crops. For example, for many crops, farmers sell the ‘best’ crops or largest bunches of matooke.

In the process of collecting data on yield, frequency counts could be done to find the most common measurements, conditions and states. Fortunately, for crops like sweet potatoes, cassava, plantains, simsim, etc, normally only one condition and state exists.

## Experience from the 1963/65 Census

In order to convert the weights of the crop harvested in various conditions into a weight in one standard condition, it was necessary to estimate the weight losses that occur in drying, threshing, etc. As little information was available on weight losses that occur in such processes, it was decided to estimate conversion factors by collecting the required data during the census. The Form used is attached as Annex ….. The enumerators were instructed to persuade the holder to put aside a small sample of the crop harvested until it was, in the holder’s opinion, dry. The enumerator first weighed the sample in its condition at the first harvest.

When, in the holder’s opinion, the crop was ready for further processing, he was asked to process the sample separately from the remainder of the stored crop.

The enumerator then weighed the sample in its processed condition. Each enumerator was asked to record two or three such samples on each of their holdings. It was found that some enumerators did their work well while others did it badly. So it was concluded that further work was necessarily to establish conversion factors with a higher degree of accuracy.

## Methodology Used by the UCA 2008/09 Technical Team for Computing Conversion Factors

**4.3.1 Questionnaires/Forms**

The raw data used in the calculation of Conversion Factors was collected throughout the different statistical regions of the country. Information was collected using forms customized for major crops for which conversion factors was collected. Each form had to take care of all the various conditions and states for the crop.

# Data Collection during the UCA

The actual conversion to standard units, conditions and states is done at the analysis stage. Therefore what was required during the UCA fieldwork was to collect data in order to get comprehensive and up-to-date data on the various weights and measures plus the crop conditions and states.

Before collecting data for the conversion factors to be used in converting the measurements in the holder’s yield estimates or agricultural inputs, lists of the most common weights and measures or units used in each locality for each crop were required. It was also necessary to identify the most common conditions and states.

## Issues and Problems

Therefore there were the following issues and problems:

(a) The identification of the most common measurement units, condition and state for each crop in each locality.

1. Organisation of the collection of data on measurement units as part of UCA.

(c) Carrying out of experiments in order to establish loss of moisture content and hence get the dry weight equivalent E.g. maize or beans harvested green with shell need to be converted to the dry grain equivalent.

## Findings from the UCA

The following observations were made during the UCA.

(a) There is a multiplicity of units used around the country. Clearly, the list obtained during the UCA was not comprehensive. It should of course be noted that some units are called different names in different parts of the country. E.g. “*kataasa*”, “*kateisa*”, small basin or “*kolokolo*”.

(b) Some units in different parts of the country, give similar standard weights. For example, small basins, “*kataasa*”, and bowl. There is, therefore, a challenge to identify and consolidate these. A start has now been made. It should of course also be noted that some of these units have the same basic standard sizes. For example, tins of Kimbo, Cowboy, Margarine, or Kasaku are ½, 1 or 2 kilograms. Also, tins, basins or jerry cans are 20 litres. The baskets are more varied. Indeed, there was more confusion in the baskets with no differentiation, for example, between “*kisero/kasero*”, “*kibbo/kabbo*”, and “*kikapu*”. Neither was there a differentiation between the sack/bag sizes. All these require a much clearer identification and specification of the measurement units before the weighing is done.

(c) No attempt was made to establish the various moisture levels (states of dryness or wetness) of the crops. Further, the weights given are gross weights, i.e., they include the weight of the (containers) measurement units.

(d) A lot more work needs to be done to develop CFs for the various crop states and conditions in order to up-date the data from the 2008/09 census. During visits to Research Stations it was found that there is hardly any information on CFs for the crop conditions and states. It will, therefore, be necessary to work out some programme of special studies for these in collaboration with Research Stations. It was however also noted that the main problems for conversion are likely to be with crops which are “continuously” harvested in different states and conditions, e.g., beans, maize, peas, etc.

The Unit of Quantity codes need standardisation and to be more comprehensive. For example, should include bunches of bananas (small, medium and large) and numbers for sugarcane.

# INSTRUCTIONS ON CROPS

Detailed instructions for the crops will be given during the training course, but the following are some remarks for your guidance:-

**Groundnuts:** These will normally be weighed after harvest in the shell, but may be either wet or dry for some holders. Having plucked the groundnuts, leave them lying in the field to dry before bringing them to the compound. In such a case, you will weigh the nuts when in the compound and record them as “with shell” but “dry”.

**Sweet potatoes:** If the sweet potatoes are covered in mud, you should attempt to clean them to some extent before weighing.

**Maize:** Normally when harvested, it is broken off near the head. Should a considerable amount of stalk be harvested together with the head, report this under crop condition. The maize may also be wet (green) or dry on harvesting. For some maize, is left to dry in the field before harvesting. However, even though the maize may be classified as dry, it may still contain considerable surface moisture due to rain on the day of the harvest, etc. In such a case, although, you record the maize as dry, you should also record it as with (or without) surface moisture. Also record where the harvested crop is “ in sheaf” or “not in sheaf”.

**Bean:** Record carefully the crop condition, in particular, whether or not the stalks were still present when weighted. Beans do not include cowpeas. The heading “with shell” or “ without shell” refers also to “with pod” or “ without pod”, for crops such as beans.

**Finger Miller:** This crop presents similar problem to maize and should be treated in a similar manner.

**Sorghum:** This crop presents similar problems to finger millet and maize. It is normally mature when harvested, but is occasionally harvested green and used without storing as is some maize. If the finger millet and sorghum are mixed together when harvested, separate them before weighing.

**Field Peas:** This crop presents similar problems to beans.

**Sim-sim:** This isnormally harvested in large quantities when mature, but do not weigh until the crop is threshed. Therefore, try to ensure that you can identify in the store different portions of the crop which may have been harvested at different times or from different plots.

**Pigeon Peas:** Presents similar problems to field peas and beans. Pigeon peas are commonly inter-planted with crops such as finger millet, but are not normally harvested together. If they are harvested together, they must be separated before weighing.

# ANNEX 1: TABLES OF CONVERSION FACTORS

**CASSAVA**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Unit code** | **Unit\_Name** | **WEIGHT (IN KG) OF CASSAVA AT:** | | | |
| **49 Dry after additional  drying-state not  applicable** | | **29 Fresh / raw  harvested- state not  applicable** | |
| **(1)** | **(2)** | **(3)** |  |  |  |
| 38 | **EXPT**  Basket ( 10 kg) | **1.9** | 6.7 | **4** | 11.08 |
| 40 | Basket ( 2 kg) |  | 1.34 |  | 2.216 |
| 37 | Basket ( 20 kg) |  | 13.40 |  | 23 |
| 39 | Basket ( 5 kg) |  | 3.35 |  | 5.75 |
| 66 | Bundle (Unspecified) |  | 5.60 |  | 11.2 |
| 70 | Cluster (Unspecified) |  | 5.60 |  | 11.2 |
| 64 | Heap (Unspecified) |  | 5.60 |  | 11.2 |
| 15 | Jerrican ( 10 lts) |  | 7.25 |  | 9 |
| 18 | Jerrican ( 2 lts) |  | 1.45 |  | 1.6 |
| 14 | Jerrican ( 20 lts) |  | 14.50 |  | 18 |
| 17 | Jerrican ( 3 lts) |  | 2.18 |  | 2.3 |
| 16 | Jerrican ( 5 lts) |  | 3.63 |  | 4.5 |
| 01 | Kilogram (kg) |  | 1 |  | 1 |
| 31 | Kimbo/Cowboy/Blueband Tin ( 0.5 kg) |  | 0.38 |  | 0.42 |
| 30 | Kimbo/Cowboy/Blueband Tin ( 1 kg) |  | 0.75 |  | 1.5 |
| 29 | Kimbo/Cowboy/Blueband Tin ( 2 kg) |  | 1.60 |  | 3.2 |
| 85 | Number of Units ( General) |  | 0.50 |  | 1 |
| 50 | Packet ( 1 kg ) |  | 0.75 |  | 1.5 |
| 49 | Packet ( 2 kg ) |  | 1.60 |  | 3.2 |
| 22 | Plastic Basin ( 20 lts) |  | 14.50 |  | 42 |
| 10 | Sack (100kgs) |  | 95.00 |  | 204 |
| 09 | Sack (120kgs) |  | 110.00 |  | 231 |
| 12 | Sack (50kgs) |  | 30.00 |  | 102 |
| 11 | Sack (80kgs) |  | 75.00 |  | 126 |
| 13 | Sack (unspecified) |  | 85.00 |  | 330 |
| 20 | Tin ( 20its) |  | 14.50 |  | 18 |

**SWEET POTATOES**

|  |  |  |
| --- | --- | --- |
| **Unit code** | **Unit\_Name** | **29 Fresh / raw  harvested- state  not applicable** |
| **(1)** | **(2)** | **(3)** |
| 38 | Basket ( 10 kg) | 14.35 |
| 40 | Basket ( 2 kg) | 2.87 |
| 37 | Basket ( 20 kg) | 26.4 |
| 39 | Basket ( 5 kg) | 6.15 |
| 66 | Bundle (Unspecified) | 3 |
| 70 | Cluster (Unspecified) | 3 |
| 64 | Heap (Unspecified) | 3 |
| 15 | Jerrican ( 10 lts) | 12.075 |
| 18 | Jerrican ( 2 lts) | 2.415 |
| 14 | Jerrican ( 20 lts) | 24.15 |
| 17 | Jerrican ( 3 lts) | 3.6225 |
| 16 | Jerrican ( 5 lts) | 6.04 |
| 01 | Kilogram (kg) | 1 |
| 31 | Kimbo/Cowboy/Blueband Tin ( 0.5 kg) | 0.5 |
| 30 | Kimbo/Cowboy/Blueband Tin ( 1 kg) | 1 |
| 29 | Kimbo/Cowboy/Blueband Tin ( 2 kg) | 2 |
| 85 | Number of Units ( General) | 0.5 |
| 49 | Packet ( 2 kg ) | 2 |
| 54 | Packet ( Unspecified ) | 1 |
| 22 | Plastic Basin ( 20 lts) | 24.15 |
| 10 | Sack (100kgs) | 113.25 |
| 09 | Sack (120kgs) | 129.5 |
| 12 | Sack (50kgs) | 56 |
| 11 | Sack (80kgs) | 91 |
| 13 | Sack (unspecified) | 155 |
| 20 | Tin ( 20its) | 24.15 |
| 21 | Tin ( 5its) | 6.04 |

**IRISH POTATOES**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | | **WEIGHT (IN KG) OF IRISH AT:** | | |
| **Unit Code** | **Unit\_Name** | **Kanugu** | **Kisoro** | **Average** |
| **29 Fresh / raw  harvested- state not  applicable** | **29 Fresh / raw  harvested-  state not  applicable** | **29 Fresh / raw  harvested- state not  applicable** |
| **(1)** | **(2)** | **(3)** | **(3)** | **(3)** |
| 38 | Basket ( 10 kg) | 13.5 |  | 11.75 |
| 40 | Basket ( 2 kg) | 2 |  | 3 |
| 37 | Basket ( 20 kg) |  |  | 20.7 |
| 39 | Basket ( 5 kg) | 5.3 |  | 6 |
| 64 | Heap (Unspecified) |  |  | 3 |
| 14 | Jerrican ( 20 lts) |  |  | 20.7 |
| 01 | Kilogram (kg) |  |  | 1 |
| 31 | Kimbo/Cowboy/Blueband Tin ( 0.5 kg) |  |  | 0.5 |
| 30 | Kimbo/Cowboy/Blueband Tin ( 1 kg) |  |  | 1 |
| 29 | Kimbo/Cowboy/Blueband Tin ( 2 kg) |  |  | 2 |
| 85 | Number of Units ( General) |  |  | 0.5 |
| 22 | Plastic Basin ( 20 lts) | 19 |  | 20.7 |
| 10 | Sack (100kgs) |  | 105.9 | 115 |
| 09 | Sack (120kgs) | 136.6 | 114.6 | 137 |
| 12 | Sack (50kgs) | 65.6 | 56.2 | 65 |
| 11 | Sack (80kgs) |  | 72.4 | 95 |
| 13 | Sack (unspecified) |  |  | 153 |
| 20 | Tin ( 20its) |  |  | 20.7 |
| 21 | Tin ( 5its) |  |  | 5.18 |

**SIMSIM**

|  |  |  |
| --- | --- | --- |
| **Unit code** | **Unit\_Name** | **WEIGHT (IN KG) OF SIMSIM AT:** |
| **39 Dry at harvest- grain** |
| **(1)** | **(2)** | **(3)** |
| 38 | Basket ( 10 kg) | 9.2 |
| 40 | Basket ( 2 kg) | 1.8 |
| 37 | Basket ( 20 kg) | 18.8 |
| 39 | Basket ( 5 kg) | 3.9 |
| 27 | Bottle ( 250 ml) | 0.15  0.5 |
| 23 | Bottle ( 750 ml) |
| 66 | Bundle (Unspecified) | 1 |
| 76 | Calabash ( Above 5 lts) | 4.7 |
| 32 | Cup/Mug ( 0.5 lt) | 0.35 |
| 15 | Jerrican ( 10 lts) | 7.25 |
| 14 | Jerrican ( 20 lts) | 13 |
| 16 | Jerrican ( 5 lts) | 3.75 |
| 77 | Jug ( 2 lts) | 1.68 |
| **01** | **Kilogram (kg)** | 1 |
| 31 | Kimbo/Cowboy/Blueband Tin ( 0.5 kg) | 0.45 |
| 30 | Kimbo/Cowboy/Blueband Tin ( 1 kg) | 0.85 |
| 29 | Kimbo/Cowboy/Blueband Tin ( 2 kg) | 1.775 |
| 22 | Plastic Basin ( 20 lts) | 13 |
| 10 | Sack (100kgs) | 102.5 |
| 09 | Sack (120kgs) | 123 |
| 12 | Sack (50kgs) | 51.75 |
| 11 | Sack (80kgs) | 72.45 |
| 13 | Sack (unspecified) | 136.33 |
| 04 | Small Cup with handle (Akendo) | 0.15 |
| 20 | Tin ( 20its) | 19 |
| 21 | Tin ( 5its) | 4.25 |
|  |  |  |

**MAIZE**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Unit code** | **Unit\_Name** | **11** | **12 Green (fresh) harvested - with shell / cob without stalk** | **13 Green (fresh) harvested- in the cob** | **21 Fresh / raw**  **harvested- with shell / cob and with stalk** | **22** | **23** | **31 Dry at harvest- with shell / cob and with stalk** | **32 Dry at harvest- with shell / cob without stalk** | **33 Dry at harvest- in the cob** | **43 Dry after additional drying- in the cob** | **45 Dry after additional drying-**  **grain** |
| **(1)** | **(2)** | **3** | **(4)** | **(5)** | **(6)** | **(7)** | **(8)** | **(9)** | **(10)** | **(9)** | **(10)** | 11 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Expt** |  | **5.8** | **5.8** | **5.8** | **5.8** | **5.8** | **5.8** | **4.2** | **3.6** | **3.25** | **3** | **2.6** |
| 86 | Acre |  |  |  |  |  |  |  |  |  |  |  |
| 38 | Basket ( 10 kg) | 11.67 | 11.67 | 11.67 | 11.67 | 11.67 | 11.67 | 8.5 | 7 | 5 | 5 | 9 |
| 40 | Basket ( 2 kg) | 2.33 | 2.33 | 2.33 | 2.33 | 2.33 | 2.33 | 2.125 | 1.75 | 1 | 1 | 1.8 |
| 37 | Basket ( 20 kg) | 23.33 | 23.33 | 23.33 | 23.33 | 23.33 | 23.33 | 17 | 14 | 10 | 10 | 18 |
| 39 | Basket ( 5 kg) | 5.83 | 5.83 | 5.83 | 5.83 | 5.83 | 5.83 | 4.25 | 3.5 | 2.5 | 2.5 | 4.5 |
| 66 | Bundle (Unspecified) | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3 | 3 | 3 | 3 | 3 |
| 70 | Cluster (Unspecified) | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3 | 3 | 3 | 3 | 3 |
| 32 | Cup/Mug ( 0.5 lt) | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.5 | 0.5 | 0.5 | 0.5 | 0.35 |
| 74 | Gologolo (4 - 5 lts) | 5.83 | 5.83 | 5.83 | 5.83 | 5.83 | 5.83 | 3.5 | 3 | 2.5 | 2.5 | 4.5 |
| 64 | Heap (Unspecified) | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3 | 3 | 3 | 3 | 3 |
| 19 | Jerrican (1 lt) | 1.17 | 1.17 | 1.17 | 1.17 | 1.17 | 1.17 | 0.85 | 0.7 | 0.5 | 0.5 | 0.75 |
| 15 | Jerrican ( 10 lts) | 11.67 | 11.67 | 11.67 | 11.67 | 11.67 | 11.67 | 8.5 | 7 | 5 | 5 | 8.25 |
| 18 | Jerrican ( 2 lts) | 2.33 | 2.33 | 2.33 | 2.33 | 2.33 | 2.33 | 1.7 | 1.4 | 1 | 1 | 1.65 |
| 14 | Jerrican ( 20 lts) | 23.33 | 23.33 | 23.33 | 23.33 | 23.33 | 23.33 | 17 | 14 | 10 | 10 | 16.5 |
| 17 | Jerrican ( 3 lts) | 3.50 | 3.50 | 3.50 | 3.50 | 3.50 | 3.50 | 2.55 | 2.1 | 1.5 | 1.5 | 2.475 |
| 01 | Kilogram (kg) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1 | 1 | 1 | 1 | 1 |
| 31 | Kimbo/Cowboy/Blueband Tin ( 0.5 kg) | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.35 | 0.35 | 0.4 |
| 30 | Kimbo/Cowboy/Blueband Tin ( 1 kg) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.7 | 0.7 | 0.8 |
| 29 | Kimbo/Cowboy/Blueband Tin ( 2 kg) | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 1.3 | 1.3 | 1.6 |
| 85 | Number of Units ( General) | 0.34 | 0.34 | 0.34 | 0.34 | 0.34 | 0.34 | 0.25 | 0.20 | 0.14 | 0.14 | 0.24 |
| 50 | Packet ( 1 kg ) | 1.17 | 1.17 | 1.17 | 1.17 | 1.17 | 1.17 | 1.17 | 1.17 | 0.7 | 0.7 | 0.8 |
| 22 | Plastic Basin ( 20 lts) | 23.33 | 23.33 | 23.33 | 23.33 | 23.33 | 23.33 | 17 | 14 | 11 | 9 | 16 |
| 10 | Sack (100kgs) | 140.00 | 140.00 | 140.00 | 140.00 | 140.00 | 140.00 | 123.64 | 101.82 | 80 | 70 | 125 |
| 09 | Sack (120kgs) | 168.00 | 168.00 | 168.00 | 168.00 | 168.00 | 168.00 | 148.36 | 122.18 | 96 | 84 | 150 |
| 12 | Sack (50kgs) | 70.00 | 70.00 | 70.00 | 70.00 | 70.00 | 70.00 | 61.82 | 50.91 | 40 | 35 | 60 |
| 11 | Sack (80kgs) | 112.00 | 112.00 | 112.00 | 112.00 | 112.00 | 112.00 | 98.91 | 81.45 | 64 | 56 | 100 |
| 13 | Sack (unspecified) | 186.20 | 186.20 | 186.20 | 186.20 | 186.20 | 186.20 | 164.44 | 135.42 | 106.4 | 93.1 | 166.25 |
| 20 | Tin ( 20its) | 23.33 | 23.33 | 23.33 | 23.33 | 23.33 | 23.33 | **17** | **14** | **11** | 10 | 18 |
| 21 | Tin ( 5its) | 5.83 | 5.83 | 5.83 | 5.83 | 5.83 | 5.83 | 4.25 | 3.5 | 2.75 | 2.5 | 4.5 |

**NB: 39 Dry at harvest- grain and 45 Dry after additional drying- grain is the SAME CONDITION AND STATE**

**BANANAS**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | **WEIGHT (IN KG) OF BANANA BEER AT:** | **WEIGHT (IN KG) OF BANANA FOOD AT:** | **WEIGHT (IN KG) OF BANANA SWEET AT:** |
| **Unit Code** | **Unit\_Name** | **29 Fresh / raw harvested- state not applicable** | **29 Fresh / raw harvested- state not applicable** | **29 Fresh / raw harvested- state not applicable** |
|  |  |  |  |  |
| **(1)** | **(2)** | **(3)** | **(4)** | **(5)** |
| 1 | Kilogram (kg) | 1 | 1 | 1 |
| 9 | Sack (120kgs) | 208 | 218 |  |
| 10 | Sack (100kgs) | 150 | 210 | 80 |
| 11 | Sack (80kgs) |  | 115 |  |
| 12 | Sack (50kgs) |  | 98 |  |
| 13 | Sack (unspecified) |  | 280 |  |
| 14 | Jerrican ( 20 lts) | 28 | 28 |  |
| 15 | Jerrican ( 10 lts) | 15 |  |  |
| 16 | Jerrican ( 5 lts) | 6.3 | 6.8 |  |
| 18 | Jerrican ( 2 lts) |  | 2.8 |  |
| 22 | Plastic Basin ( 20 lts) |  |  | 15 |
| 20 | Tin ( 20its) |  | 40 |  |
| 22 | Plastic Basin ( 20 lts) | 35 | 30 |  |
| 29 | Kimbo/Cowboy/Blueband Tin ( 2 kg) |  | 2.1 | 1.5 |
| 36 | Basket ( 20 kg) |  |  | 22 |
| 37 | Basket ( 20 kg) |  | 28 |  |
| 38 | Basket ( 10 kg) | 8 | 13.5 | 13 |
| 39 | Basket ( 5 kg) |  | 8 | 5.8 |
| 40 | Basket ( 2 kg) | 4.8 | 4.7 |  |
| 49 | Packet ( 2 kg ) |  | 2.8 |  |
| 50 | Packet ( 1 kg ) |  | 1.3 |  |
| 54 | Packet ( Unspecified ) | 6.5 |  |  |
| 64 | Heap (Unspecified) | 1.75 | 2.3 | 1.8 |
| 66 | Bundle (Unspecified) | 96 | 100 | 60 |
| 67 | Bunch (Big) | 30 | 35 | 20 |
| 68 | Bunch (Medium) | 23 | 25 | 15 |
| 69 | Bunch (Small) | 19 | 15 | 10 |
| 70 | Cluster (Unspecified) | 2.3 | 1.5 | 3 |
| 84 | Pair of bunches | 45 | 50 | 20 |
| 85 | Number of Units ( General) | 0.1 | 0.1 | 0.1 |

**BEANS**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Unit code** | **Unit\_Name** | **WEIGHT (IN KG) OF BEANS AT:** | | |
| **14 Green harvested- in the pods** | **24 Fresh / raw harvested- in pods** | **45 Dry after additional drying- grain** |
| (1) | (2) | (3) | (4) | (5) |
|  | EXPERIMENT |  | 6 | 1.2 |
|  |  |  |  |  |
| 38 | Basket ( 10 kg) |  | 5 | 7.8 |
| 40 | Basket ( 2 kg) |  | 1 | 1.56 |
| 37 | Basket ( 20 kg) |  | 10 | 15.6 |
| 39 | Basket ( 5 kg) |  | 2.5 | 3.9 |
| 66 | Bundle (Unspecified) |  | 3 | 3 |
| 70 | Cluster (Unspecified) |  | 3 | 3 |
| 32 | Cup/Mug ( 0.5 lt) |  | 0.1 | 0.2 |
| 74 | Gologolo (4 - 5 lts) |  | 2.1 | 4.2 |
| 64 | Heap (Unspecified) |  | 3 | 6 |
| 15 | Jerrican ( 10 lts) |  | 4.2 | 9.8 |
| 14 | Jerrican ( 20 lts) |  | 8.4 | 19.6 |
| 16 | Jerrican ( 5 lts) |  | 2.1 | 4.9 |
| 79 | Jug ( 1 lts) |  | 0.42 | 0.84 |
| 77 | Jug ( 2 lts) |  | 0.84 | 1.68 |
| 78 | Jug (1.5 lts) |  | 0.16 | 0.32 |
| 1 | Kilogram (kg) |  | 1 | 1 |
| 31 | Kimbo/Cowboy/Blueband Tin ( 0.5 kg) |  | 0.5 | 1 |
| 30 | Kimbo/Cowboy/Blueband Tin ( 1 kg) |  | 1 | 2 |
| 29 | Kimbo/Cowboy/Blueband Tin ( 2 kg) |  | 2 | 4 |
| 50 | Packet ( 1 kg ) |  | 1 | 2 |
| 49 | Packet ( 2 kg ) |  | 2 | 4 |
| 22 | Plastic Basin ( 20 lts) |  | 9 | 15.5 |
| 10 | Sack (100kgs) |  | 66 | 134 |
| 9 | Sack (120kgs) |  | 79.2 | 160.8 |
| 12 | Sack (50kgs) |  | 33 | 67 |
| 11 | Sack (80kgs) |  | 46.2 | 93.8 |
| 13 | Sack (unspecified) |  | 87.78 | 178.22 |
| 4 | Small Cup with handle (Akendo) |  | 0.1 | 0.2 |
| 20 | Tin ( 20its) |  | 8.4 | 15.5 |
| 21 | Tin ( 5its) |  | 2.1 | 3.875 |

**NB**

1. In Column 4 under, buy exactly 1 kg (in pods), bring them back, remove pods, dry the seeds & finally weigh them. It is this weight that will be recorded in col 5. It is this weight that will be recorded in column 5.
2. For each of the remaining Units of Quantities, you should weigh and record in column 4 and 5
3. Small cup with handle (Akendo) will be taken to mean "Plastic cup (0.5 ltrs)

**RICE**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **UNIT CODE** | **UNIT NAME** | **WEIGHT (IN KG) OF RICE AT:** | | |
| **Dry at harvest- with shell** | **Dry after additional drying-with Shell** | **Dry after additional drying-grain** |
| 1 | 2 | 3 | 4 | 5 |
| **Exp.** |  |  |  |  |
| 38 | Basket (10kg) | 6.25 | 6.25 | 8.33 |
| 40 | Basket (2kg) | 1.25 | 1.25 | 1.67 |
| 37 | Basket (20kg) | 12.5 | 12.5 | 16.67 |
| 39 | Basket (5kg) | 3.13 | 3.13 | 4.17 |
| 66 | Bundle ( Unspecified) | 3 | 3 | 3 |
| 32 | Cup/Mug (0.5lt) | 0.5 | 0.5 | 0.5 |
| 2 | Gram | 0 | 0 | 0 |
| 64 | Heap ( Unspecified) | 3 | 3 | 3 |
| 14 | Jerrican (20lts) | 12.5 | 12.5 | 16.67 |
| 1 | **Kilogram (kg)** | 1 | 1 | 1 |
| 31 | Kimbo/Cowboy/Blueband Tin (.5kg) | 0.6 | 0.6 | 0.5 |
| 30 | Kimbo/Cowboy/Blueband Tin ( 1 kg) | 1.1 | 1.1 | 1 |
| 29 | Kimbo/Cowboy/Blueband Tin ( 2 kg) | 2.2 | 2.2 | 2 |
| 22 | Plastic Basin ( 20lts ) | 11.4 | 11.4 | 8 |
| 10 | Sack ( 100kgs) | 80 | 80 | 100 |
| 9 | Sack ( 120kgs) | 100 | 100 | 120 |
| 12 | Sack ( 50kgs) | 37.7 | 37.7 | 50 |
| 11 | Sack ( 80kgs) | 60 | 60 | 80 |
| 13 | Sack ( unspecified) | 106.4 | 106.4 | 133 |
| 20 | Tin ( 20lts) | 12.5 | 12.5 | 16.67 |
| 21 | Tin ( 5lts) | 3.13 | 3.13 | 4.17 |

**FIELD PEAS**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Unit code** | **Unit\_Name** | **WEIGHT (IN KG) OF FIELD PEAS AT:** | | |
| **14 Green  harvested- in the  pods** | **24 'Fresh / raw  harvested- in pods  or shell / husks** | **45 Dry after additional  drying- grain** |
| **(1)** | **(2)** |  | **(3)** | **(4)** |
| 38 | Basket ( 10 kg) | 7.2 | 7.2 | 8 |
| 40 | Basket ( 2 kg) | 0.8 | 0.8 | 1 |
| 37 | Basket ( 20 kg) | 15.8 | 15.8 | 16 |
| 39 | Basket ( 5 kg) | 3 | 3 | 3 |
| 66 | Bundle (Unspecified) | 3 | 3 | 3 |
| 32 | Cup/Mug ( 0.5 lt) | 0.18 | 0.18 | 0.3 |
| 64 | Heap (Unspecified) | 3 | 3 | 3 |
| 14 | Jerrican ( 20 lts) | 13.5 | 13.5 | 15 |
| 16 | Jerrican ( 5 lts) | 2 | 2 | 3 |
| 77 | Jug ( 2 lts) | 1 | 1 | 1.3 |
| 01 | Kilogram (kg) | 1 | 1 | 0.8 |
| 31 | Kimbo/Cowboy/Blueband Tin ( 0.5 kg) | 0.3 | 0.3 | 0.5 |
| 30 | Kimbo/Cowboy/Blueband Tin ( 1 kg) | 0.5 | 0.5 | 0.8 |
| 29 | Kimbo/Cowboy/Blueband Tin ( 2 kg) | 1.1 | 1.1 | 1.7 |
| 22 | Plastic Basin ( 20 lts) | 11.8 | 11.8 | 13 |
| 10 | Sack (100kgs) | 52.1 | 52.1 | 65 |
| 09 | Sack (120kgs) | 60.8 | 60.8 | 78.3 |
| 12 | Sack (50kgs) | 20 | 20 | 27.4 |
| 11 | Sack (80kgs) | 50 | 50 | 58 |
| 13 | Sack (unspecified) | 75 | 75 | 80 |
| 20 | Tin ( 20its) | 10.5 | 10.5 | 15.9 |
| 21 | Tin ( 5its) | 1.8 | 1.8 | 3 |

\*\*\*\*\* The fresh raw harvested (24) and Green harvested in the pods (14) conditions and states have been treated as the same.

**COW PEAS**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Unit code** | **Unit\_Name** |  |  | **WEIGHT (IN KG) OF PEAS AT:** |
| **14 Green  harvested- in the** | **24 'Fresh / raw  harvested- in pods or** | **45 Dry after additional drying-  grain** |
| **(1)** | **(2)** |  | **(3)** | **(4)** |
| 38 | Basket ( 10 kg) | 4.3 | 4.3 | 9.1 |
| 40 | Basket ( 2 kg) | 1.4 | 1.4 | 1.8 |
| 37 | Basket ( 20 kg) | 12 | 12 | 18.3 |
| 39 | Basket ( 5 kg) | 3 | 3 | 4 |
| 66 | Bundle (Unspecified) | 3 | 3 | 3 |
| 32 | Cup/Mug ( 0.5 lt) | 0.38 | 0.38 | 0.48 |
| 64 | Heap (Unspecified) | 3 | 3 | 3 |
| 14 | Jerrican ( 20 lts) | 9.5 | 9.5 | 20 |
| 16 | Jerrican ( 5 lts) | 2.5 | 2.5 | 3.5 |
| 77 | Jug ( 2 lts) | 1.1 | 1.1 | 1.8 |
| 01 | Kilogram (kg) | 1 | 1 | 1 |
| 31 | Kimbo/Cowboy/Blueband Tin ( 0.5 kg) | 0.28 | 0.28 | 0.3 |
| 30 | Kimbo/Cowboy/Blueband Tin ( 1 kg) | 1 | 1 | 0.8 |
| 29 | Kimbo/Cowboy/Blueband Tin ( 2 kg) | 2 | 2 | 1.8 |
| 22 | Plastic Basin ( 20 lts) | 13 | 13 | 17 |
| 10 | Sack (100kgs) | 65 | 65 | 75 |
| 09 | Sack (120kgs) | 80 | 80 | 85 |
| 12 | Sack (50kgs) | 25 | 25 | 28 |
| 11 | Sack (80kgs) | 28.5 | 28.5 | 38 |
| 13 | Sack (unspecified) | 72 | 72 | 80 |
| 20 | Tin ( 20its) | 17 | 17 | 17 |
| 21 | Tin ( 5its) | 2.1 | 2.1 | 2.3 |

The fresh raw harvested (24) and Green harvested in the pods (14) conditions and states have been treated as the same.

**PIGEON PEAS**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Unit code** | **Unit\_Name** |  | **WEIGHT (IN KG) OF PIGEON PEAS AT:** | |
| **14 Green harvested-  in the pods** | **24 'Fresh / raw  harvested- in pods or  shell / husks** | **45 Dry after  additional drying-  grain** |
| **(1)** | **(2)** | **(3)** | **(4)** | **(5)** |
| 38 | Basket ( 10 kg) | 7 | 7 | 11.1 |
| 40 | Basket ( 2 kg) | 1 | 1 | 2.2 |
| 37 | Basket ( 20 kg) | 15 | 15 | 23 |
| 39 | Basket ( 5 kg) | 2 | 2 | 5.6 |
| 66 | Bundle (Unspecified) | 3 | 3 | 3 |
| 32 | Cup/Mug ( 0.5 lt) | 0.18 | 0.18 | 0.5 |
| 64 | Heap (Unspecified) | 3 | 3 | 3 |
| 14 | Jerrican ( 20 lts) | 12.8 | 12.8 | 17 |
| 16 | Jerrican ( 5 lts) | 2 | 2 | 4.25 |
| 77 | Jug ( 2 lts) | 1.3 | 1.3 | 2.4 |
| 01 | Kilogram (kg) | 1 | 1 | 1 |
| 31 | Kimbo/Cowboy/Blueband Tin ( 0.5 kg) | 0.28 | 0.28 | 0.6 |
| 30 | Kimbo/Cowboy/Blueband Tin ( 1 kg) | 0.51 | 0.51 | 1.2 |
| 29 | Kimbo/Cowboy/Blueband Tin ( 2 kg) | 1.8 | 1.8 | 2.5 |
| 22 | Plastic Basin ( 20 lts) | 15 | 15 | 18 |
| 10 | Sack (100kgs) | 65 | 65 | 136 |
| 09 | Sack (120kgs) | 80 | 80 | 163.2 |
| 12 | Sack (50kgs) | 25 | 25 | 65 |
| 11 | Sack (80kgs) | 70 | 70 | 108.8 |
| 13 | Sack (unspecified) | 76 | 76 | 163.2 |
| 20 | Tin ( 20its) | 9.2 | 9.2 | 28 |
| 21 | Tin ( 5its) | 2 | 2 | 7 |

\*\*\*\*\* The fresh raw harvested (24) and Green harvested in the pods (14) conditions and states have been treated as the same

**SOYA BEANS**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Unit code** | **Unit\_Name** |  | **WEIGHT (IN KG) OF SOYA BEANS AT:** | |
| **14 Green harvested- in the pods** | **24 Fresh / raw harvested- in pods** | **45 Dry after additional drying- grain** |
| **(1)** | **(2)** | **(3)** | **(4)** | **(5)** |
| 38 | Basket ( 10 kg) |  | 4.41 | 7 |
| 40 | Basket ( 2 kg) |  | 0.64 | 1.4 |
| 37 | Basket ( 20 kg) |  | 9.13 | 14 |
| 39 | Basket ( 5 kg) |  | 1.25 | 3.5 |
| 66 | Bundle (Unspecified) |  | 3.00 | 3 |
| 32 | Cup/Mug ( 0.5 lt) |  | 0.18 | 0.5 |
| 64 | Heap (Unspecified) |  | 3.00 | 3 |
| 14 | Jerrican ( 20 lts) |  | 10.16 | 13.5 |
| 77 | Jug ( 2 lts) |  | 1.35 | 2.5 |
| 01 | Kilogram (kg) |  | 1.00 | 1 |
| 31 | Kimbo/Cowboy/Blueband Tin ( 0.5 kg) |  | 0.23 | 0.5 |
| 30 | Kimbo/Cowboy/Blueband Tin ( 1 kg) |  | 0.43 | 1 |
| 29 | Kimbo/Cowboy/Blueband Tin ( 2 kg) |  | 1.44 | 2 |
| 22 | Plastic Basin ( 20 lts) |  | 11.25 | 13.5 |
| 10 | Sack (100kgs) |  | 57.35 | 120 |
| 09 | Sack (120kgs) |  | 70.59 | 144 |
| 12 | Sack (50kgs) |  | 23.85 | 62 |
| 11 | Sack (80kgs) |  | 61.76 | 96 |
| 13 | Sack (unspecified) |  | 74.32 | 159.6 |
| 04 | Small Cup with handle (Akendo) |  | 0.10 | 0.1 |
| 20 | Tin ( 20its) |  | 4.44 | 13.5 |

**NB: 24 Fresh / raw harvested- in pods - imputed based on pigeon peas data**

**GNUTS**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Unit code** | **Unit\_Name** | **WEIGHT (IN KG) OF GNUTs AT:** | | |
| **22 Fresh / raw harvested- with shell** | **42 Dry after additional drying- with shell** | **45 Dry after additional drying- grain** |
| **(1)** | **(2)** | **(3)** | **(4)** | **(5)** |
|  | **EXPERIMENT** | **3.6** | **1.7** | **1.2** |
| 38 | Basket ( 10 kg) | 7.25 | 3.5 | 8 |
| 40 | Basket ( 2 kg) | 1.45 | 0.7 | 1.6 |
| 37 | Basket ( 20 kg) | 14.5 | 7 | 15 |
| 39 | Basket ( 5 kg) | 3.6 | 1.75 | 3.75 |
| 66 | Bundle (Unspecified) | 3 | 3 | 3 |
| 32 | Cup/Mug ( 0.5 lt) | 0.5 | 0.5 | 0.25 |
| 74 | Gologolo (4 - 5 lts) | 2 | 2 | 4 |
| 64 | Heap (Unspecified) | 3 | 3 | 3 |
| 15 | Jerrican ( 10 lts) | 7.25 | 3.5 | 7.5 |
| 14 | Jerrican ( 20 lts) | 14.5 | 7 | 15 |
| 77 | Jug ( 2 lts) | 1.45 | 0.7 | 1.5 |
| 01 | **Kilogram (kg) (fresh/raw....)** | 1 |  | 1 |
| 01 | **Kilogram (kg) (dry after add dry shell)** |  | 1 | 1 |
| 31 | Kimbo/Cowboy/Blueband Tin ( 0.5 kg) | 0.725 | 0.4 | 0.5 |
| 30 | Kimbo/Cowboy/Blueband Tin ( 1 kg) | 1.45 | 0.7 | 1 |
| 29 | Kimbo/Cowboy/Blueband Tin ( 2 kg) | 2.9 | 1.5 | 2 |
| 50 | Packet ( 1 kg ) | 1.45 | 0.7 | 1 |
| 49 | Packet ( 2 kg ) | 2.9 | 1.5 | 2 |
| 22 | Plastic Basin ( 20 lts) | 14.5 | 7 | 15 |
| 10 | Sack (100kgs) | 100 | 48 | 110 |
| 09 | Sack (120kgs) | 120 | 58 | 135 |
| 12 | Sack (50kgs) | 50 | 24 | 55 |
| 11 | Sack (80kgs) | 80 | 38.4 | 88 |
| 13 | Sack (unspecified) | 130 | 78 | 143 |
| 04 | Small Cup with handle (Akendo) | 0.1 | 0.1 | 0.1 |
| 20 | Tin ( 20its) | 14.5 | 7 | 15 |
| 21 | Tin ( 5its) | 3.625 | 1.75 | 3.75 |

**SORGHUM**

**WEIGHT (IN KG) OF SORGHUM AT:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | **harvested- state  not applicable** | **39 Dry at harvest-  state not applicable** | **49 Dry after additional  drying- state not applicable** | **45 Dry after additional drying-  grain** |
| **1** | **EXPT** | **9 kg** | **4 kg** | **3.9** | **3.1** |
| 4 | Small Cup with handle (Akendo) | 0.09444 | 0.09444 | 0.09444 | 0.09444 |
| 9 | Sack (120kgs) | 81.59616 | 45.3312 | 45.3312 | 142.79328 |
| 10 | Sack (100kgs) | 67.9968 | 37.776 | 37.776 | 118.9944 |
| 11 | Sack (80kgs) | 54.39744 | 30.2208 | 30.2208 | 84.61824 |
| 12 | Sack (50kgs) | 33.9984 | 18.888 | 18.888 | 60.4416 |
| 13 | Sack (unspecified) | 90.435744 | 50.24208 | 50.24208 | 158.262552 |
| 14 | Jerrican ( 20 lts) | 8.4996 | 5.6664 | 5.6664 | 17.9436 |
| 16 | Jerrican ( 5 lts) | 2.1249 | 1.4166 | 1.4166 | 4.4859 |
| 17 | Jerrican ( 3 lts) | 1.27494 | 0.84996 | 0.84996 | 2.69154 |
| 20 | Tin ( 20its) | 8.4996 | 5.6664 | 5.6664 | 17.9436 |
| 21 | Tin ( 5its) | 2.1249 | 1.4166 | 1.4166 | 4.4859 |
| 22 | Plastic Basin ( 20 lts) | 8.4996 | 5.6664 | 5.6664 | 16.9992 |
| 29 | Kimbo/Cowboy/Blueband Tin ( 2 kg) | 0.9444 | 0.9444 | 0.9444 | 1.8888 |
| 30 | Kimbo/Cowboy/Blueband Tin ( 1 kg) | 0.4722 | 0.4722 | 0.4722 | 0.9444 |
| 31 | Kimbo/Cowboy/Blueband Tin ( 0.5 ))kg) | 0.4722 | 0.4722 | 0.4722 | 0.4722 |
| 32 | Cup/Mug ( 0.5 lt) | 0.09444 | 0.09444 | 0.09444 | 0.4722 |
| 37 | Basket ( 20 kg) | 10.3884 | 7.5552 | 7.5552 | 21.7212 |
| 38 | Basket ( 10 kg) | 5.1942 | 3.7776 | 3.7776 | 10.8606 |
| 39 | Basket ( 5 kg) | 2.5971 | 1.8888 | 1.8888 | 5.4303 |
| 40 | Basket ( 2 kg) | 1.03884 | 0.9444 | 0.9444 | 2.17212 |
| 49 | Packet ( 2 kg ) | 0.9444 | 0.9444 | 0.9444 | 1.8888 |
| 50 | Packet ( 1 kg ) | 0.4722 | 0.4722 | 0.4722 | 0.4722 |
| 64 | Heap (Unspecified) | 2.8332 | 4.722 | 4.722 | 2.8332 |
| 66 | Bundle (Unspecified) | 2.8332 | 2.8332 | 2.8332 | 2.8332 |
| 74 | Gologolo (4 - 5 lts) | 0.9444 | 9.444 | 9.444 | 2.8332 |
| 77 | Jug ( 2 lts) | 0.84996 | 3.7776 | 3.7776 | 1.79436 |
| 1 | Kilogram (kg) | 0.9444 | 0.9444 | 0.9444 | 0.9444 |
| 15 | Jerrican ( 10 lts) | 4.2498 | 2.8332 | 2.8332 | 8.9718 |
| 70 | Cluster (Unspecified) | 2.8332 | 2.8332 | 2.8332 | 1.8888 |

Conversion Factors for

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| S/R | **Crop Name** | **Cropcode** | **Sack  (50Kgs)** | **Sack  (80Kgs)** | **Sack  (100Kgs)** | **Sack  (120Kgs)** | **Sack  (Unspecified)** | **Plastic  Basin(20lts)** | **Tin (5lts)** | **Tin (20lts)** | **Jerrycan  (20lts)** | **Jerrycan  (10lts)** | **Jerrycan  (5 lts)** | **Jerrycan  (3lts)** | **Jerrycan  (2lts)** | **Kimbo/Cowboy/Bl  ueband Tin(2lts)** |
| 1 | Cabbage | 213 | 40 | 64 | 83.1 | 101.1 | 121 | 14.1 | 0 | 16 | 14 | 0 | 0 | 0 | 0 | 0 |
| 2 | Cucumber | 221 | 57 | 88 | 105.1 | 125 | 128.1 | 25.2 |  | 27.97 | 27 | 16.8 | 7 | 5 |  | 3.5 |
| 3 | Egg Plants | 222 | 35 | 53.1 | 67 | 80 | 85 | 14.5 | 3.8 | 15.3 | 13.3 | 6.7 | 3.5 | 2 |  | 1 |
| 4 | Tomatoes | 223 | 0 | 0 | 0 | 0 | 0 | 13 | 3.3 | 13 | 13.8 | 11 | 5 | 0 | 0 | 2 |
| 5 | Water melon | 224 | 80 | 128 | 160 | 165.2 | 168 | 32 |  | 30 | 29.7 | 0 | 0 | 0 | 0 | 0 |
| 6 | Pumpkins | 226 | 66.3 | 103.8 | 120 | 144 | 148 | 24 |  | 26.76 | 24 | 0 | 0 | 0 | 0 | 0 |
| 7 | Carrots | 231 | 37.7 | 61.4 | 75.5 | 96 | 94.3 | 15.1 | 3.8 | 15 | 11 | 8.2 | 5 | 3 | 0 | 2 |
| 8 | Onions | 234 | 46 | 75 | 94 | 119.5 | 121.3 | 14 | 3.5 | 14 | 15 | 8.8 | 5 | 4 | 0 | 2 |
| 9 | Ovacadoes | 311 | 45 | 72 | 91.4 | 108 | 112.5 | 18 |  | 17.6 | 17 | 9 | 4 | 0 | 0 | 0 |
| 10 | Mangoes | 315 | 65 | 104 | 130 | 144 | 148 | 26 | 6.5 | 26.1 | 26 | 13 | 6.5 | 0 | 0 | 0 |
| 11 | Pawpaw | 316 | 44 | 70.4 | 90.2 | 112.8 | 117.5 | 17.9 |  | 17.6 | 17 | 0 | 0 | 0 | 0 | 0 |
| 12 | Pine apples | 317 | 67 | 107 | 134 | 158.4 | 159.9 | 26.8 |  | 26.3 | 26 | 0 | 0 | 0 | 0 | 0 |
| 13 | Passion fruits | 319 | 42 | 68.2 | 90 | 100.8 | 105.84 | 16.8 | 8.4 | 16.9 | 16.9 | 8.4 | 8.4 | 4.2 | 0 | 0 |
| 14 | Oranges | 323 | 47 | 76 | 94 | 112.8 | 117.5 | 18.8 | 4.7 | 19.2 | 19 | 4.7 | 4.7 | 0 | 0 | 1.8 |
| 15 | Sunflower | 438 | 43.4 | 69 | 86.8 | 112.8 | 115 | 18.8 | 4.7 | 18.8 | 18 | 4.7 | 4.7 | 0 | 0 | 1.9 |
| 16 | Yams | 541 | 40 | 64 | 80 | 96 | 100.8 | 16 |  | 16.1 | 16.2 | 8 | 0 | 0 | 0 | 0 |
| 17 | Cocoa | 614 | 58 | 75.2 | 94 | 108 | 188 | 19 | 4.7 | 19 | 18.6 | 9.1 | 2.8 | 0 | 1.9 | 0 |