# AGRICULTURE STATISTICS
# 2014

**DEPARTMENT OF AGRICULTURE**
**MINISTRY OF AGRICULTURE AND FORESTS**
**ROYAL GOVERNMENT OF BHUTAN**
**THIMPHU : BHUTAN**

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DEPARTMENT OF AGRICULTURE
MINISTRY OF AGRICULTURE AND FORSETS
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TRASHICHHODZONG : THIMPHU

# FOREWORD

The Department of Agriculture is pleased to publish the Annual Agriculture Statistics for the year 2014. As usual, it contains data on land use, crop area, yield, production and utilization of the crops cultivated in the country. There are two parts in this publication: Part I includes the data aggregated at the national level, while part II contains the data at the Dzongkhag level. Attempts have been made to bring improvements in the quality of data estimated through establishing a new system of data processing by involving Regional Research and Development Centres.

We hope that this publication will be useful for planners, policymakers, researchers, extension personals, academicians and those who are involved in the development of agriculture sector.

The Department of Agriculture would like to thank the Research and Development Centres in the Regions and the Agriculture sectors of all the 20 Dzongkhags for their contributions.

(Nim Dorji)
**Director General**

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We would also like to acknowledge the support, cooperation and guidance from the National Statistics Bureau (NSB) and the Food & Agriculture Organization.

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## A. METHODOLOGY

### 1) Introduction

The Department of Agriculture (DoA) started the annual agriculture sample survey in 2004 and it has since then been an annual publication of the department. The statistics essentially includes information on agriculture land use, crop area, yield and production of cereals, oil seeds and pulses, spices, vegetables, fruits and nuts that are cultivated in the country. This provides timely and useful statistics for making informed policy decisions and planning appropriate investments.

The publication comes in two parts: 'Part 1' is a summary of the information collected which is presented at national level including data analysis on price and income, food security and crop utilization while the 'Part 2' of the publication contains data at the Dzongkhag level.

### 2) Objectives

The objectives of the survey are:

- To provide useful information on agricultural land use, crop area, yield and production of the crops cultivated in the country.
- To provide key statistics for helping in monitoring and evaluating agriculture development programmes.
- To provide statistical data for policy makers, agriculture extension workers, researchers and farmers for effective planning for investments in agriculture development.

### 3) Sampling frame

The household listing is done by the Agriculture Extension Officers (AEOs) who are based in the Gewogs. The AEOs submits the updated household listings to the Dzongkhag Agriculture Sector on an annual basis. The respective Dzongkhag agriculture sector validates and submits the final complied listing to the DoA.

For 2014 annual agriculture sample survey the 2013 household listing information's were used as a frame and only for those left out Districts and sub districts/Gewogs whose households were not updated was updated using the 2013 format given below.

## Format for 2014 annual agriculture sample survey HHs listing

| Sl. No | Name of head of the HHs | Village | H.no | T. no | Land cultivated/ not cultivated | If Cultivated | | Land left fallow | | Land leased out | | Land leased in | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | WLC | DLC | WLF | DLF | WLO | DLO | WLI | DLI |
| 1 | Pema | Benzibee | Ka-3-42 | 198 | LC | | 11.37 | | 4.63 | | | | |
| 2 | Jangchub | Benzibee | KA-3-39 | 106 | LC | | 8.76 | | 10.59 | | | | |
| 3 | Dolkar | Benzibee | KA-3-41 | 231 | NC | | | 3.7 | | 1.5 | | | |
| 4 | Sangay | Benzibee | KA-3-40 | 199 | LC | | 14.87 | | 7.93 | | | | |

During the sampling process, only households actively engaged in agriculture farming have been included in the survey to avoid 'empty' or 'non-response' questionnaires. The data on agriculture land utilization has been used as an indicator/ auxiliary information to deduce the sample size for the survey.

**4) Questionnaire design**

The survey questionnaire used for Agriculture Survey 2014 is the revised version of Agriculture Survey questionnaire 2013. The revision was done by the Agriculture Extension and Information Management Section (AEIMS) of the Department of Agriculture (DoA) in consultation with the division heads and representatives of all the 20 Dzongkhag Agriculture sectors.

The revision of the 2013 questionnaire was done mainly for the following reasons:

- To do away with the unwanted data variables.
- To adapt the questionnaire as per the changing needs to include a variety of information required over time (eg; to integrate the questionnaire with the 11th Five Year Plan (FYP) for inclusion of information necessary for its effective implementation).

**5) Sample size**

It is difficult to produce high precision survey results for all crops in each Gewog as the diverse ecological and climatic zones of Bhutan determine the geographical distribution of the crops. Moreover, the estimation of the many indicators in agriculture like the annual crop yield and production, the cropped area, the number of fruit trees etc. becomes difficult as they are a function of many complex variables which in turn are dependent on many other factors. Therefore, making it increasingly difficult to come up with a rigid "sample size" which can give precise, unbiased and efficient estimates. The farmers in Bhutan practice conventional mix farming system with small land holdings.

The formulae given below were used for calculating the sample size, the information on agriculture utilized area at the Gewog level was used as an indicator for the sample size calculation.

The initial sample size $n_0 = \left( \frac{Z*100*\text{ CV area}}{P} \right)^{\wedge}2$

Where, $n_0$= *is the initial sample size*

*Z= is the statistic that defines the level of confidence desired, at 95% Confidence Interval the value of z = 1.96*

*C.V= non percentage C.V (coefficient of variation) of the agriculture utilized area is taken for this survey.*

*Non percentage C.V*= SD area / $\bar{x}$ area

*P = the value of population proportion "p" or Margin of error is set at 15% i.e. 0.15 at gewog level.*

The final sample size is given by using population correction factor (CF),

$$n = \frac{n_0}{(1+(n_0 / N))}$$

Where, N= Population size / total farming Households at each Gewog/Sub districts.

The formulae presented above were used to determine the sample size for all the 205 Gewogs in the 20 Dzongkhags.

**6) Sampling Design**

The "**Circular Systematic sampling"** method was adopted to select the sample at the Gewog/Sub districts level for many of its advantages and conveniences.

The farming households in the geog were taken as the ultimate sampling units from which the samples were drawn/selected using circular systematic sampling approach.

**7) Data Collection**

The data collection was carried out in mid-March-June 2015, by the AEOs in the gewogs under the supervision of the Dzongkhag Agriculture Sector heads. Twenty Assistant Dzongkhag Agriculture Officers (ADAOs) were briefed on the use of the questionnaire and methods of data collection, who in turn trained the field agriculture staff.

**Data Entry and Processing**

The database for 2014 survey is an improved version of the 2013 which was designed in CSPRO 6 (Census and Survey Processing Software) version software. The data Managers in the Districts were trained on the use of CSPRO for data cleaning and entry. The data entry and processing was carried out in June 2015 in the Dzongkhags. An improved method for crop cut data collection was introduced to improve the data collection and processing. A focal point each has been identified in the Research and Development Centres (RDCs) who collects and compiles the raw survey and crop cut data from their respective regions. The researchers at the RDCs and the concerned commodity co-ordinators validates the raw data which is then submitted to the DoA for further analysis.

**8) Data Analysis and Estimation**

The data analysis was done in SPSS version 20 (provided by the NSB) by AEIMS of the DoA.

***Yield Estimation:***

The yield of the various crops obtained from the survey have been crosschecked and validated with the yields from the crop cuts. In the event where there were inconsistencies in the yield provided by the survey data, the crop cut data was used.

***Production= Estimated total area (from the sample survey) * Estimated yield (from the crop cuts)***

The 'weight estimation procedure' was used to determine the estimates of population from the sample survey where the data was multiplied by a sampling weight, or expansion factor. The basic weight for each sample household would be equal to the inverse of its probability of selection. The sample design for the agriculture survey 2014 is self-weighting within stratum/Gewog, meaning that all the sampled or the enumerated households within a Gewog will have the same weight.

***Adjustment for non-response/ Non response Weight***

In order to adjust for the loss of representativeness caused by non-responding households, the weight of the responding units (***Wt_Eh***) was increased by deploying the following formulae. It is the reciprocal/inverse of the percentage responding units from the sample.

$$\textit{Non response Weight} / W_{nr} = \frac{1}{Eh / Sh} \Rightarrow \boxed{\frac{Sh}{Eh}}$$

Where: $Sh$ = *Sampled farming households in the gewog*
$Eh$ = *Enumerated farming households in the gewog*

***Design Weight / Weighting for probability of sample selection***

The design weight or base weight is the inverse of probability of selection of the sample.

Based on the Circular systematic sampling design, the base weight at the Gewog level is calculated as follows:

$$\textit{Design weight/Base weight/ } Wd = K \Rightarrow \frac{1}{Sh / Nh} = \boxed{\frac{Nh}{Sh}}$$

$Sh$ = *Sampled farming households in the Gewog.*
$Nh$ = *Total farming households in the Gewog.*

**Therefore the final weight becomes / FW = $Wd \times Wnr$**
***(Or)***
**The Final Weight = Design Weight × Non response Weight**

Finally, the estimation for observed values in the Gewogs has been obtained by multiplying each sample data with the final weight (FW) calculated for each Gewogs.

Therefore, the estimate of a *total value* (such as total production) is the product of the final weight, FW and the value- *yi*, for each responding unit, summed over all responding units:

$$\hat{Y} = \sum_{i=1}^{n} FW \times yi$$

## B. SURVEY COVERAGE AND SCOPE

From the new updated total rural farming households at least 19,339 (31% on an average) of the 61,509 were selected for the enumeration. The coverage was 18,784 (97%) of the total sampled farming households of 19,339. The non-response or the absentees stood at 3% (555) of the households selected for the 2014 survey as compared to 5% from the previous year.

# PART 1

# NATIONAL LEVEL STATISTICS

## C. SUMMARY FINDINGS

Following are the estimated summary statistics based on the data collected from a sample of 18,784 farming Households from mid March to June 2015. The weight estimation method is used to estimate population parameters from the sample data.

**Table 1: Coverage of Rural households by the survey 2014**

| Dzongkhag | Total HHs (Sample frame)Nh | Sample HHs/Sh | Percent sampled | Enumerated HHs/(Eh) | Percent Coverage |
|---|---|---|---|---|---|
| **Bumthang** | 1,151 | 382 | 33 | 382 | 100 |
| **Chhukha** | 2,889 | 949 | 33 | 939 | 99 |
| **Dagana** | 4,206 | 1,312 | 31 | 1,297 | 99 |
| **Gasa** | 487 | 256 | 53 | 246 | 96 |
| **Ha** | 1,300 | 519 | 40 | 500 | 96 |
| **Lhuentse** | 2,332 | 771 | 33 | 758 | 98 |
| **Monggar** | 5,363 | 1,706 | 32 | 1,440 | 84 |
| **Paro** | 2,721 | 954 | 35 | 954 | 100 |
| **Pemagatshel** | 3,237 | 1,032 | 32 | 955 | 93 |
| **Punakha** | 3,506 | 1,046 | 30 | 1,024 | 98 |
| **S/Jongkhar** | 3,960 | 1,021 | 26 | 996 | 98 |
| **Samtse** | 5,869 | 1,591 | 27 | 1,589 | 100 |
| **Sarpang** | 3,592 | 1,156 | 32 | 1,139 | 99 |
| **Thimphu** | 965 | 450 | 47 | 448 | 100 |
| **Trashigang** | 6,952 | 1,684 | 24 | 1,654 | 98 |
| **Trashiyangtse** | 2,554 | 810 | 32 | 810 | 100 |
| **Trongsa** | 1,705 | 514 | 30 | 513 | 100 |
| **Tsirang** | 2,882 | 1,095 | 38 | 1,094 | 100 |
| **Wangdue** | 3,961 | 1,374 | 35 | 1,342 | 98 |
| **Zhemgang** | 1,877 | 717 | 38 | 704 | 98 |
| **BHUTAN** | **61,509** | **19,339** | **31** | **18,784** | **97** |

## 1. Demographic Characteristics

**Table 1.1: Farming Households Population in 2014**

| Dzongkhag | Avg responding Age | Responding Sex in | | 0-6 years | | 6-14 years | | 15-64 years | | Above 64 years | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female |
| Bumthang | 43 | 25 | 75 | 377 | 300 | 501 | 465 | 1,365 | 1,653 | 304 | 393 |
| Chhukha | 45 | 62 | 38 | 684 | 514 | 1,009 | 978 | 4,844 | 4,710 | 735 | 715 |
| Dagana | 45 | 59 | 41 | 727 | 616 | 1,485 | 1,471 | 5,125 | 5,521 | 636 | 670 |
| Gasa | 51 | 54 | 46 | 48 | 57 | 192 | 152 | 714 | 754 | 74 | 95 |
| Ha | 46 | 45 | 55 | 321 | 325 | 292 | 337 | 1,581 | 1,813 | 329 | 300 |
| Lhuntse | 46 | 34 | 66 | 729 | 685 | 994 | 1,046 | 3,000 | 3,559 | 521 | 609 |
| Monggar | 43 | 42 | 58 | 1,240 | 1,327 | 1,725 | 1,397 | 6,107 | 7,301 | 1,118 | 1,142 |
| Paro | 47 | 42 | 58 | 584 | 545 | 971 | 1,067 | 4,026 | 4,626 | 753 | 681 |
| Pema-gatshel | 48 | 59 | 41 | 414 | 402 | 478 | 587 | 3,085 | 3,558 | 799 | 736 |
| Punakha | 47 | 32 | 68 | 711 | 658 | 1,499 | 1,425 | 4,681 | 5,364 | 633 | 594 |
| S/Jongkhar | 46 | 67 | 33 | 511 | 386 | 890 | 795 | 4,643 | 4,928 | 545 | 565 |
| Samtse | 47 | 77 | 23 | 1,212 | 1,107 | 2,359 | 2,308 | 10,452 | 10,484 | 1,138 | 963 |
| Sarpang | 46 | 63 | 37 | 555 | 537 | 938 | 908 | 4,814 | 5,097 | 667 | 554 |
| Thimphu | 46 | 37 | 63 | 126 | 112 | 273 | 249 | 1,170 | 1,351 | 176 | 156 |
| Trashigang | 47 | 61 | 39 | 1,087 | 981 | 2,852 | 2,880 | 9,359 | 9,904 | 1,603 | 1,316 |
| Trashi-yangtse | 45 | 46 | 54 | 559 | 531 | 832 | 795 | 2,878 | 3,290 | 456 | 407 |
| Trongsa | 45 | 27 | 73 | 176 | 233 | 540 | 445 | 1,954 | 2,221 | 303 | 340 |
| Tsirang | 46 | 65 | 35 | 463 | 501 | 984 | 933 | 4,206 | 4,350 | 669 | 575 |
| Wangdue | 44 | 37 | 63 | 952 | 897 | 1,233 | 1,390 | 4,726 | 6,097 | 732 | 773 |
| Zhemgang | 45 | 48 | 52 | 437 | 384 | 849 | 696 | 2,630 | 2,744 | 436 | 496 |
| **BHUTAN** | **46** | **53** | **47** | **11,914** | **11,097** | **20,896** | **20,326** | **81,360** | **89,325** | **12,629** | **12,083** |

**Table 1.2: Dzongkhag wise estimated total population residing on farm by Sex in 2014**

| Dzongkhag | Male Total | Female Total | Population Total |
|---|---|---|---|
| **Bumthang** | 2,547 | 2,811 | 5,359 |
| **Chhukha** | 7,273 | 6,917 | 14,190 |
| **Dagana** | 7,973 | 8,278 | 16,251 |
| **Gasa** | 1,027 | 1,059 | 2,086 |
| **Ha** | 2,524 | 2,775 | 5,299 |
| **Lhuentse** | 5,244 | 5,899 | 11,143 |
| **Monggar** | 10,190 | 11,167 | 21,358 |
| **Paro** | 6,333 | 6,919 | 13,252 |
| **Pemagatshel** | 4,776 | 5,283 | 10,059 |
| **Punakha** | 7,524 | 8,041 | 15,565 |
| **Samdrup Jongkhar** | 6,590 | 6,675 | 13,265 |
| **Samtse** | 15,162 | 14,862 | 30,024 |
| **Sarpang** | 6,973 | 7,096 | 14,069 |
| **Thimphu** | 1,746 | 1,869 | 3,615 |
| **Trashigang** | 14,901 | 15,082 | 29,983 |
| **Trashiyangtse** | 4,726 | 5,024 | 9,750 |
| **Trongsa** | 2,973 | 3,239 | 6,212 |
| **Tsirang** | 6,322 | 6,359 | 12,681 |
| **Wangdue** | 7,644 | 9,157 | 16,801 |
| **Zhemgang** | 4,351 | 4,319 | 8,670 |
| **BHUTAN** | **126,799** | **132,831** | **259,630** |

**Figure 1: Bhutan's total population residing on farm by sex, 2014.**

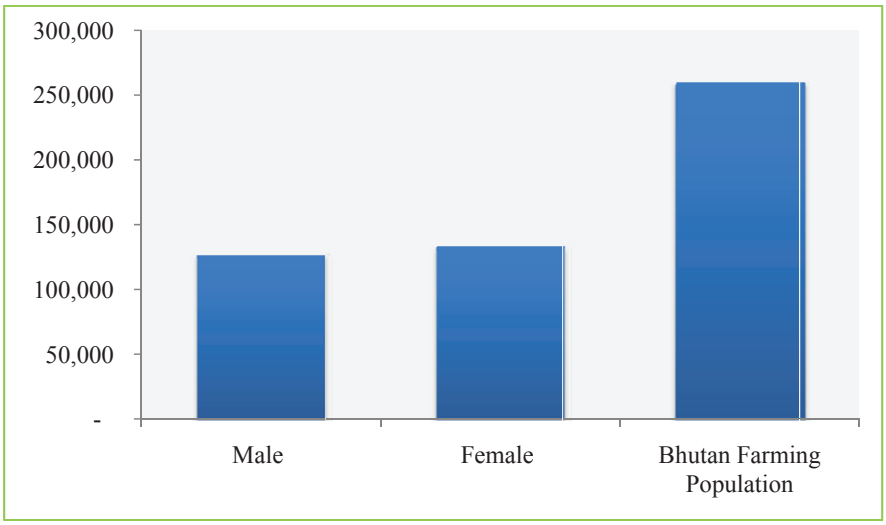
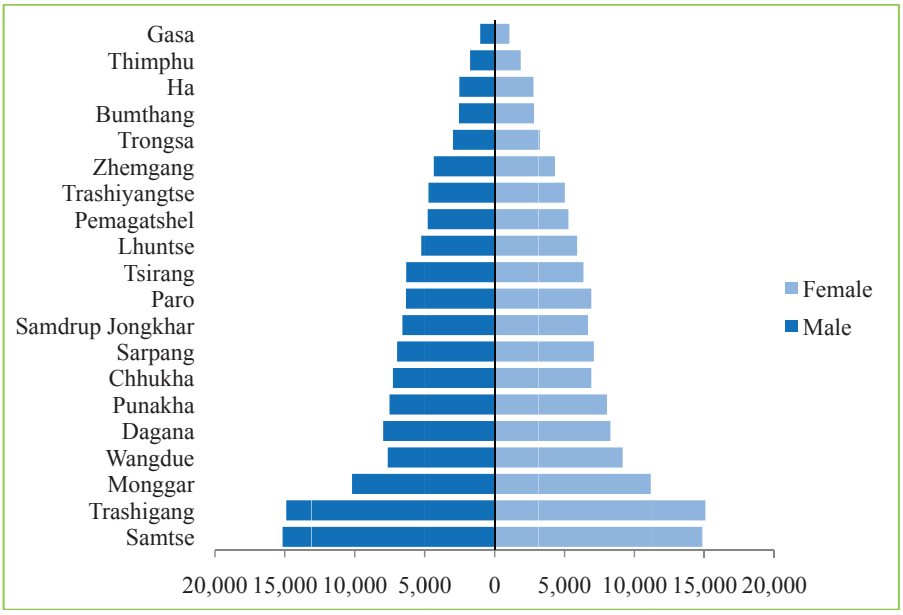



**Figure2: Dzongkhag wise Population Pyramid by sex, 2014.**



## 2. Land Utilization 2014

### Dry land

***Note: Operational land holdings= Kamzhing own land cultivated + Kamzhing fallow + Kamzhing leased in.***

Since, only the farming households which are engaged in agriculture activities are included in the annual sample survey 2014 excluding Gungtongs(empty HHs) and HHs having land but not engaged in agriculture activities. The Kamzhing/Dry land left fallow could be much higher than the estimated figure below.

In year 2014 of the total estimated **137,700 acres** of operational Kamzhing land holdings **48,856 acres** were left fallow.

| Dzongkhag | Dry land Own Cultivated (Acres) | Dry land left Fallow (Acres) | Dry land leased-Out (Acres) | Dry land leased-In (Acres) | Operational Land holdings |
|---|---|---|---|---|---|
| **Bumthang** | 1,640 | 2,242 | 105 | 205 | 4,087 |
| **Chhukha** | 7,267 | 2,341 | 223 | 56 | 9,665 |
| **Dagana** | 7,961 | 2,262 | 354 | 128 | 10,352 |
| **Gasa** | 323 | 44 | 0.49 | 9 | 376 |
| **Ha** | 2,733 | 749 | 5 | 34 | 3,517 |
| **Lhuentse** | 3,154 | 1,859 | 176 | 159 | 5,172 |
| **Monggar** | 8,129 | 6,527 | 242 | 167 | 14,823 |
| **Paro** | 3,578 | 560 | 16 | 79 | 4,217 |
| **Pemagatshel** | 4,655 | 7,162 | 181 | 73 | 11,890 |
| **Punakha** | 985 | 347 | 29 | 14 | 1,346 |
| **S/Jongkhar** | 6,037 | 6,156 | 252 | 131 | 12,324 |
| **Samtse** | 10,537 | 2,022 | 491 | 347 | 12,907 |
| **Sarpang** | 5,635 | 1,443 | 84 | 160 | 7,238 |
| **Thimphu** | 883 | 175 | 45 | 37 | 1,095 |
| **Trashigang** | 5,780 | 5,184 | 204 | 286 | 11,250 |
| **Trashiyangtse** | 1,781 | 2,227 | 110 | 173 | 4,180 |
| **Trongsa** | 2,168 | 3,308 | 114 | 58 | 5,533 |
| **Tsirang** | 5,966 | 929 | 154 | 185 | 7,081 |
| **Wangdue** | 3,595 | 813 | 194 | 486 | 4,895 |
| **Zhemgang** | 3,234 | 2,505 | 50 | 16 | 5,755 |
| **BHUTAN** | **86,041** | **48,856** | **3,031** | **2,804** | **137,700** |

## 3. Crop Production

**Table 3.1: Cereal, Oilseeds, Spices, Legumes& Pulses and Roots/Tubers.**

| Crop Type | Crop Name | Harvested Area (acres) | Production (MT) | Yield (Kgs/acre) |
|---|---|---|---|---|
| Cereal | Paddy | 48,873 | 77,038 | 1,576 |
| | Maize | 58,938 | 77,244 | 1,311 |
| | Wheat | 4,910 | 3,465 | 706 |
| | Barley | 2,447 | 1,753 | 716 |
| | Buckwheat | 4,762 | 2,583 | 543 |
| | Millet | 4,264 | 2,362 | 554 |
| | **Cereal Total** | **124,194** | **164,445** | |
| Oilseeds | Groundnut | 357 | 266 | 746 |
| | Mustard | 2,783 | 867 | 312 |
| | Sunflower | 23 | 9 | 406 |
| | Soya bean | 710 | 301 | 424 |
| | Pyrilla(Naam) | 212 | 30 | 140 |
| | **Oilseeds Total** | **4,085** | **1,473** | |
| Spices | Cardamom | 8,683 | 1,781 | 205 |
| | Ginger | 2,651 | 4,983 | 1,880 |
| | **Spices Total** | **11,334** | **6,764** | |
| Legumes& Pulses | Rajma Bean | 1,668 | 991 | 594 |
| | Mung Bean | 1,171 | 577 | 492 |
| | Lentil | 269 | 74 | 274 |
| | **Legumes & Pulses Total** | **3,108** | **1,641** | |
| Roots & Tubers | Sweet Potato | 134 | 80 | 598 |
| | Tapioca | 677 | 568 | 838 |
| | Collocacia | 158 | 148 | 941 |
| | Yam | 74 | 93 | 1,267 |
| | **Roots &Tubers Total** | **1,042** | **889** | |

**Table 3.2: Potato and Vegetable production in 2014**

| Crop Type | Crop Name | Harvested Area (acres) | Quantity Produced (MT) | Yield (Kg/Acre) |
|---|---|---|---|---|
| Vegetables | Asparagus | 275 | 205 | 745 |
| | Chilli | 4,337 | 8,586 | 1,980 |
| | Cabbage | 1,884 | 4,364 | 2,316 |
| | Cauliflower | 1,035 | 1,650 | 1,594 |
| | Carrot | 444 | 746 | 1,679 |
| | Radish | 2,491 | 5,021 | 2,015 |
| | Turnip | 1,664 | 9,967 | 5,991 |
| | Beans | 2,391 | 2,830 | 1,184 |
| | Peas | 712 | 970 | 1,362 |
| | Tomato | 573 | 899 | 1,570 |
| | Broccoli | 875 | 1,010 | 1,154 |
| | Eggplant | 726 | 485 | 669 |
| | Lady Finger | 87 | 28 | 321 |
| | Green leaves | 2,000 | 1,938 | 969 |
| | Onion Bulb | 798 | 757 | 949 |
| | Garlic | 1,282 | 846 | 660 |
| | Tree Tomato | | 424 | |
| | Cultivated Mushroom | | 17 | |
| | Cucumber | | 2,484 | |
| | Pumpkin | | 4,081 | |
| | Squash | | 2,118 | |
| | Gourds | | 270 | |
| | **Vegetables Total** | **21,574** | **49,698** | |
| | **Potato** | **12,785** | **53,612** | **4,194** |

## 4. Fruit production

| Commodities | Total Trees (No's) | Bearing Trees (No's) | Production (MT) | Yield (Kg/bearing tree) |
|---|---|---|---|---|
| **Apple** | 277,670 | 217,317 | 7,051 | 32 |
| **Mandarin** | 2,061,023 | 1,060,009 | 45,226 | 43 |
| **Areca nut** | 1,285,908 | 626,207 | 7,468 | 12 |
| **Mango** | 57,601 | 17,458 | 586 | 34 |
| **Pear** | 44,739 | 20,586 | 1,137 | 55 |
| **Peach** | 51,222 | 33,921 | 1,435 | 42 |
| **Plum** | 28,079 | 18,029 | 783 | 43 |
| **Walnut** | 38,980 | 10,386 | 337 | 32 |
| **Jackfruit** | 12,721 | 6,976 | 1,102 | 158 |
| **Guava** | 37,071 | 26,010 | 787 | 30 |
| **Papaya** | 5,853 | 4,419 | 126 | 29 |
| **Pomegranate** | 10,370 | 5,355 | 111 | 21 |
| **Litchi** | 22,889 | 4,785 | 172 | 36 |
| **Persimmon** | 8,805 | 4,988 | 227 | 46 |
| **Banana** | 300,360 | 107,712 | 1,631 | 15 |
| **Sugarcane** | | | 324 | |
| **Passion Fruit** | | | 135 | |
| **Pine Apple** | | | 54 | |
| **BHUTAN** | | | **68,692** | |

## 5. Crop Utilization for 2014

**Table 5.1: Utilization of Cereals, Spices, Legumes & Pulses, Oil Seeds, Cucurbits and Roots & Tuber**

| Crop Type | Crop Name | Qty retained for Seed (MT) | Qty sold (MT) | Avg unit price (Nu/kg) | Amount Earned (Million Nu) | Type of Market (in %) | |
|---|---|---|---|---|---|---|---|
| | | | | | | Domestic | Export |
| Cereals | Paddy | 1,111 | 444 | 34 | 14 | 99 | 1 |
| | Maize | 983 | 1,178 | 16 | 19 | 83 | 17 |
| | Wheat | 168 | 31 | 33 | 0.9 | 100 | 0 |
| | Barley | 93 | 24 | 37 | 0.9 | 100 | 0 |
| | Finger Millet | 32 | 22 | 26 | 0.5 | 100 | 0 |
| | Foxtail Millet | 5 | 0.7 | 24 | 0.02 | 100 | 0 |
| | Sweet Buckwheat | 89 | 6 | 36 | 0.18 | 100 | 0 |
| | Bitter Buckwheat | 66 | 0.8 | 25 | 0.02 | 100 | 0 |
| Legumes & Pulses | Rajma Bean | 63 | 452 | 49 | 17 | 78 | 22 |
| | Mung Bean | 20 | 187 | 65 | 11 | 94 | 6 |
| | Lentil | 7 | 13 | 81 | 0.9 | 96 | 4 |
| Oil seeds | Mustard | 24 | 70 | 42 | 2 | 97 | 3 |
| | Sunflower | 0.3 | 1 | 59 | 0.05 | 100 | 0 |
| | Soya bean | 17 | 36 | 49 | 2 | 96 | 4 |
| | Groundnut | 15 | 57 | 67 | 3 | 99 | 1 |
| | Pyrilla (Naam) | 1 | 2 | 120 | 0.19 | 97 | 3 |
| Roots & Tubers | Sweet Potato | 3 | 6 | 30 | 0.16 | 100 | 0 |
| | Tapioca | | 46 | 21 | 0.8 | 96 | 4 |
| | Collocacia | 9 | 15 | 21 | 0.38 | 87 | 13 |
| Spices | Garlic | 91 | 222 | 85 | 18 | 97 | 3 |
| | Onion bulb | | 82 | 48 | 3 | 99.7 | 0.3 |
| | Ginger | 1,199 | 2,638 | 60 | 126 | 82 | 18 |
| | Cardamom | | 782 | 1,270 | 989 | 55 | 45 |
| Cucurbits | Cucumber | | 580 | 21 | 13 | 100 | 0 |
| | Pumpkin | | 229 | 14 | 3 | 100 | 0 |
| | Squash | | 230 | 13 | 3 | 100 | 0 |
| | Gourd | | 68 | 31 | 2 | 100 | 0 |

**Table 5.2: Utilization of Vegetables and Potato**

| Crop Type | Crop Name | Qty retained for Seed (MT) | Qty sold (MT) | Avg unit price (Nu/kg) | Amount Earned (Million Nu) | Type of Market (in %) | |
|---|---|---|---|---|---|---|---|
| | | | | | | Domestic | Export |
| Vegetables | Asparagus | | 96 | 96 | 8 | 100 | 0 |
| | Chilli | | 3,085 | 58 | 146 | 97 | 3 |
| | Cabbage | | 2,223 | 20 | 40 | 97 | 3 |
| | Cauliflower | | 418 | 33 | 15 | 97 | 3 |
| | Carrot | | 312 | 33 | 11 | 89 | 11 |
| | Radish | | 852 | 14 | 11 | 96 | 4 |
| | Turnip | | 13 | 21 | 0.2 | 100 | 0 |
| | Beans | | 906 | 36 | 33 | 97 | 3 |
| | Peas | | 394 | 38 | 13 | 86 | 14 |
| | Tomato | | 106 | 31 | 3 | 99.1 | .9 |
| | Eggplant | | 101 | 25 | 2 | 100 | 0 |
| | Ladyfinger | | 5 | 30 | 0.1 | 95 | 5 |
| | Green leaves | | 569 | 21 | 13 | 99.7 | 0.3 |
| | Broccoli | | 233 | 45 | 11 | 100 | 0 |
| | Cultivated Mushrooms | | 13 | 173 | 3 | 98 | 2 |
| | Dally Chilli | | 63 | 115 | 5 | 99.2 | .8 |
| | Tree tomato | | 65 | 37 | 3 | 100 | 0 |
| Potato | Potato | 9,139 | 34,653 | 23 | 853 | 65 | 35 |

## 6. Fruit Utilization for 2014

| Commodities | Quantity sold (MT) | Avg unit price (Nu/Kg) | Amount Earned (Million Nu) | Type of Market (in % ) | |
|---|---|---|---|---|---|
| | | | | Domestic | Export |
| **Apple** | 4,863 | 29 | 131 | 76 | 24 |
| **Mandarin** | 34,106 | 28 | 555 | 65 | 35 |
| **Mango** | 273 | 41 | 8 | 96 | 4 |
| **Pear** | 250 | 31 | 6 | 99 | 1 |
| **Peach** | 352 | 29 | 8 | 99 | 1 |
| **Plum** | 115 | 23 | 2 | 100 | 0 |
| **Walnut** | 142 | 99 | 7 | 96 | 4 |
| **Areca nut** | 5,617 | 23 | 134 | 77 | 23 |
| **Jackfruit** | 40 | 20 | 0.8 | 86 | 14 |
| **Guava** | 113 | 25 | 3 | 100 | 0 |
| **Papaya** | 11 | 24 | 0.3 | 97 | 3 |
| **Pomegranate** | 24 | 39 | 0.6 | 100 | 0 |
| **Litchi** | 25 | 34 | 0.8 | 100 | 0 |
| **Persimmon** | 88 | 35 | 2 | 99 | 1 |
| **Banana** | 286 | 23 | 6 | 99 | 1 |
| **Passion fruit** | 15 | 28 | 0.4 | 97 | 3 |
| **Pineapple** | 9 | 21 | 0.2 | 94 | 6 |

## 7. HHs Cash Income

**Table 7.1: Dzongkhag wise proportion of HHs having earned / not earned cash income from non timber forest products and other off farm activities**

| Dzongkhag | Earned | Not Earned |
|---|---|---|
| Bumthang | 70 | 30 |
| Chhukha | 25 | 75 |
| Dagana | 52 | 48 |
| Gasa | 72 | 28 |
| Ha | 54 | 46 |
| Lhuentse | 44 | 56 |
| Monggar | 48 | 52 |
| Paro | 32 | 68 |
| Pemagatshel | 52 | 48 |
| Punakha | 34 | 66 |
| Samdrup Jongkhar | 50 | 50 |
| Samtse | 23 | 77 |
| Sarpang | 36 | 64 |
| Thimphu | 57 | 43 |
| Trashigang | 49 | 51 |
| Trashiyangtse | 64 | 36 |
| Trongsa | 42 | 58 |
| Tsirang | 42 | 58 |
| Wangdue | 41 | 59 |
| Zhemgang | 44 | 56 |
| **BHUTAN** | **43** | **57** |

**Figure 3: Dzongkhag wise proportion of farming HHs having cash income from non-timber forest products and other activities.**

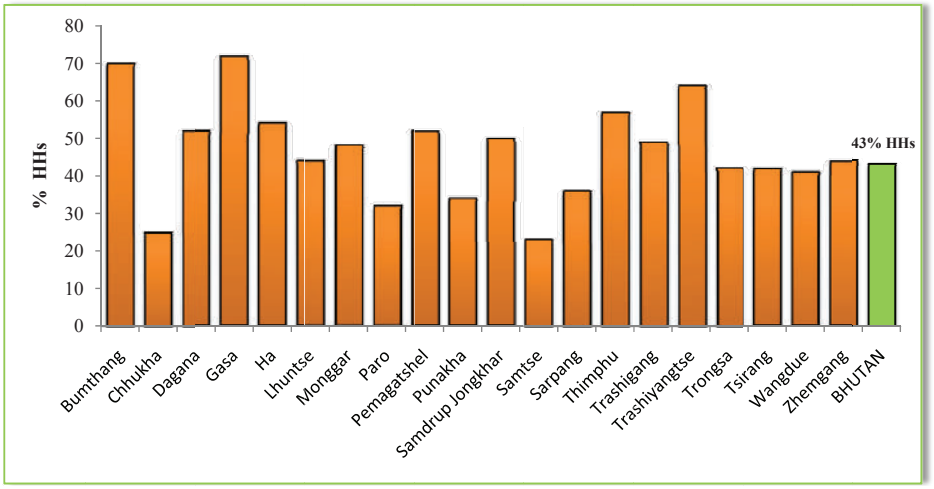



**Figure 4: Rural household cash income from forest edible product and other activities in year 2014 (in million nu.).**

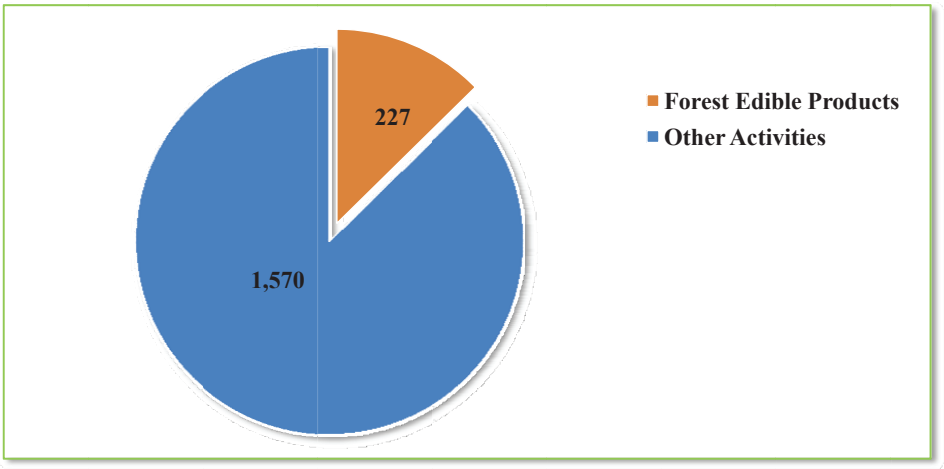


**Table 7.2: Cash income from forest edible products and other activities in year 2014.**

| Forest Edible Products | Amount Earned (Million Nu) |
|---|---|
| Bamboo products(Bamboo shoot) | 1 |
| Cane Products(Cane shoot/Patsha) | 0.3 |
| Fern(Nakay) | 3 |
| Damru | 0.3 |
| Medicinal Aromatic Plants & herbs | 5 |
| Wild Mushrooms | 19 |
| Cordyceps | 198 |
| **Total Amount Earned** | **227** |
| **Other Activities** | **Amount Earned (Million Nu)** |
| Weaving(Weaving and sale of woven products) | 95 |
| Pottering(Carrying luggage and other loads) | 69 |
| Business/Contact works | 980 |
| Part time skilled labour (eg. Carpentry, Wood crafting, traditional painting) | 426 |
| **Total Amount Earned** | **1,570** |

**Table 7.3: Cash income from processed cereal products**

| Processed Cereals | Qty Sold (MT) | Avg Unit Price (Nu/Kg) | Amount Earned (Million Nu) | Type of Market (in %) | |
|---|---|---|---|---|---|
| | | | | Domestic | Export |
| **Rice** | 1,502 | 67 | 101 | 99.9 | 0.1 |
| **Zaw** | 190 | 92 | 14 | 100 | 0 |
| **Tengma** | 361 | 106 | 38 | 97 | 3 |
| **Kharang** | 16 | 41 | 0.7 | 100 | 0 |
| **Wheat Flour** | 7 | 49 | 0.4 | 100 | 0 |
| **Buckwheat Flour** | 8 | 67 | 0.5 | 100 | 0 |
| **Zaw Flour** | 4 | 108 | 0.5 | 100 | 0 |
| **Maykhuu** | 16 | 122 | 4 | 100 | 0 |
| **Roasted Maize** | 65 | 31 | 2 | 100 | 0 |
| **Local alcoholic beverage made out of Cereals** | | | 15 | 100 | 0 |

# 8. Food Security 2014

## Table 8.1: Proportion of farming households by self sufficiency of food (agriculture crops) for 2014

| Dzongkhag | Did you produce enough agriculture crops (food) for your household? | | % HHs with food (agriculture crops) shortage by months | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Enough | Not Enough | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sept | Oct | Nov | Dec |
| Bumthang | 39 | 61 | 27 | 33 | 41 | 49 | 50 | 43 | 40 | 35 | 30 | 25 | 24 | 21 |
| Chhukha | 64 | 36 | 2 | 4 | 12 | 20 | 22 | 21 | 20 | 16 | 12 | 9 | 3 | 2 |
| Dagana | 48 | 52 | 11 | 12 | 17 | 24 | 34 | 40 | 39 | 35 | 26 | 16 | 10 | 9 |
| Gasa | 29 | 71 | 49 | 51 | 57 | 63 | 67 | 71 | 71 | 69 | 68 | 55 | 49 | 49 |
| Ha | 67 | 33 | 20 | 16 | 14 | 15 | 11 | 9 | 6 | 5 | 8 | 10 | 15 | 11 |
| Lhuentse | 78 | 22 | 5 | 7 | 10 | 13 | 17 | 17 | 17 | 13 | 10 | 6 | 5 | 4 |
| Monggar | 75 | 25 | 16 | 8 | 9 | 14 | 20 | 16 | 15 | 23 | 21 | 31 | 11 | 10 |
| Paro | 83 | 17 | 10 | 9 | 10 | 11 | 9 | 9 | 9 | 8 | 7 | 6 | 6 | 8 |
| Pemagatshel | 45 | 55 | 8 | 8 | 10 | 13 | 17 | 23 | 21 | 10 | 7 | 6 | 6 | 6 |
| Punakha | 74 | 26 | 9 | 12 | 13 | 17 | 18 | 19 | 18 | 16 | 12 | 10 | 7 | 9 |
| Samdrup Jongkhar | 58 | 42 | 6 | 12 | 17 | 26 | 29 | 24 | 15 | 13 | 14 | 12 | 7 | 5 |
| Samtse | 48 | 52 | 6 | 10 | 17 | 29 | 41 | 41 | 38 | 31 | 20 | 12 | 6 | 4 |
| Sarpang | 53 | 47 | 16 | 16 | 17 | 21 | 28 | 38 | 38 | 37 | 29 | 23 | 18 | 16 |
| Thimphu | 68 | 32 | 34 | 41 | 46 | 42 | 39 | 38 | 35 | 35 | 37 | 33 | 33 | 35 |
| Trashigang | 76 | 24 | 13 | 15 | 9 | 11 | 9 | 9 | 6 | 4 | 3 | 3 | 3 | 4 |
| Trashiyangtse | 75 | 25 | 3 | 4 | 7 | 13 | 14 | 15 | 15 | 11 | 5 | 2 | 3 | 3 |
| Trongsa | 44 | 56 | 16 | 18 | 20 | 24 | 29 | 35 | 36 | 38 | 37 | 27 | 16 | 13 |
| Tsirang | 50 | 50 | 14 | 19 | 26 | 35 | 44 | 44 | 41 | 32 | 21 | 17 | 15 | 15 |
| Wangdue | 73 | 27 | 11 | 14 | 15 | 14 | 12 | 14 | 16 | 17 | 14 | 12 | 11 | 10 |
| Zhemgang | 45 | 55 | 16 | 17 | 17 | 20 | 21 | 21 | 19 | 16 | 14 | 14 | 25 | 25 |
| **BHUTAN** | **65** | **35** | **10** | **12** | **15** | **19** | **22** | **24** | **22** | **18** | **14** | **11** | **9** | **8** |

**Figure 5: Estimated proportion of farming households facing food (Agriculture crop) shortage in the year 2014**

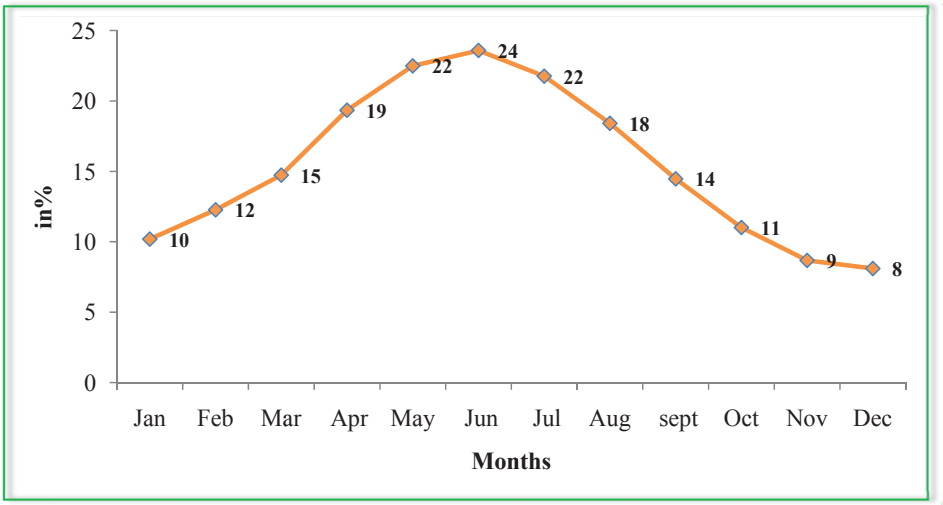
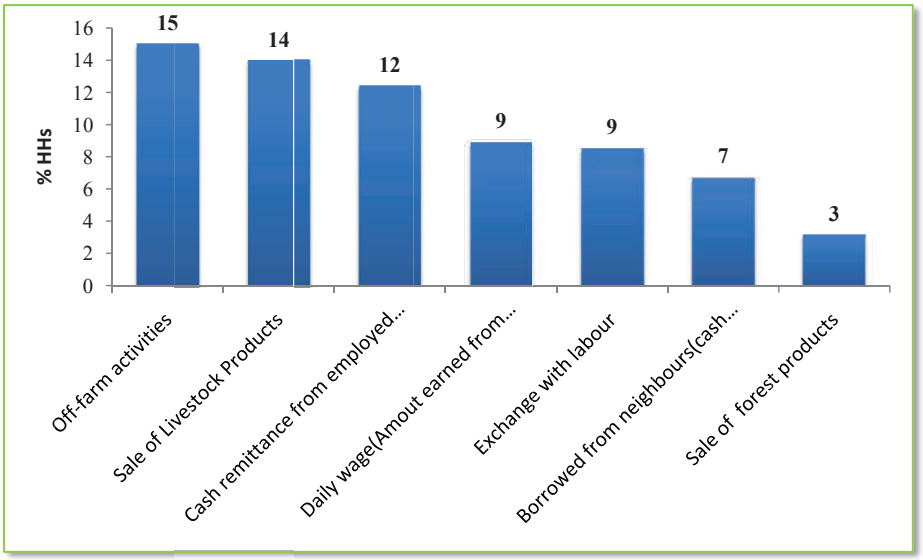



**Table 8.2: Food shortage coping mechanism in 2014**

| Coping Mechanism used | % HHs |
|---|---|
| Off-farm activities (weaving, pottering, Business/contact etc.) | **15** |
| Sale of Livestock Products | **14** |
| Cash remittance from employed members | **12** |
| Daily wage(Amount earned from working in others field) | **9** |
| Exchange with labour | **9** |
| Borrowed from neighbours(cash or agricultural products) | **7** |
| Sale of forest products | **3** |

**Figure 6: Proportion of HHs using various coping mechanisms to address the food (agriculture crop) shortage in the year 2014 for Bhutan.**

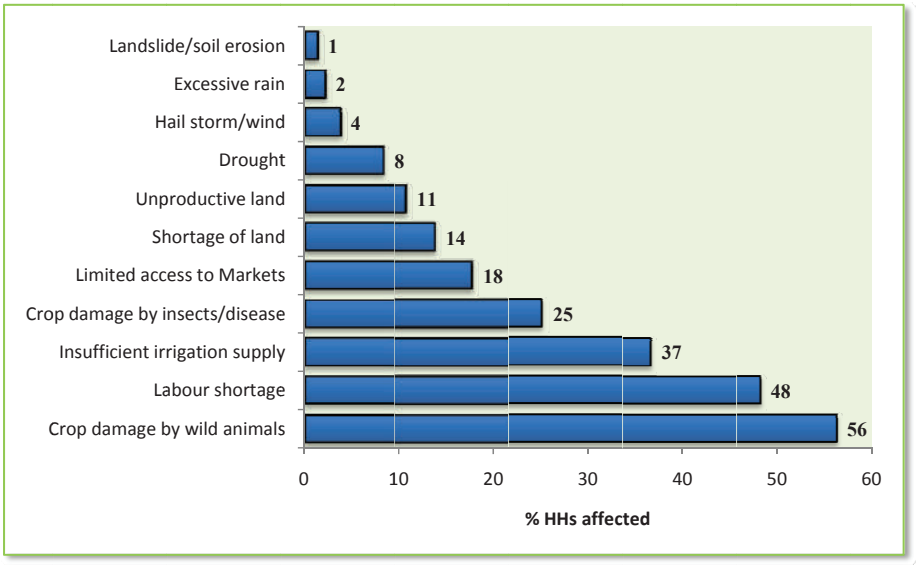


## 9. Farming Constraints faced

**Table 9: Proportion of HHs affected by the various farming constrains in the year 2014**

| Farming Constrains | HHs affected by the various farming constrains |
|---|---|
| Crop damage by wild animals | 56 |
| Labour shortage | 48 |
| Insufficient irrigation supply | 37 |
| Crop damage by insects/disease | 25 |
| Limited access to Markets | 18 |
| Shortage of land | 14 |
| Unproductive land | 11 |
| Drought | 8 |
| Hail storm/wind | 4 |
| Excessive rain | 2 |
| Landslide/soil erosion | 1 |

**Figure 7: Percentage of farming HHs affected by the various constrains in the year 2014.**



## 10. Crop damage by natural calamities and wild animals

**Table 10.1: Dzongkhag wise proportion of HHs affected by natural calamities resulting in low food production and low quality of produce.**

| Dzongkhag | Experienced | Not Experienced |
|---|---|---|
| **Bumthang** | 2 | 98 |
| **Chhukha** | 8 | 92 |
| **Dagana** | 3 | 97 |
| **Gasa** | 0 | 100 |
| **Ha** | 4 | 96 |
| **Lhuentse** | 4 | 96 |
| **Monggar** | 17 | 83 |
| **Paro** | 1 | 99 |
| **Pemagatshel** | 6 | 94 |
| **Punakha** | 1 | 99 |
| **Samdrup Jongkhar** | 5 | 95 |
| **Samtse** | 11 | 89 |
| **Sarpang** | 7 | 93 |
| **Thimphu** | 2 | 98 |
| **Trashigang** | 21 | 79 |
| **Trashiyangtse** | 26 | 74 |
| **Trongsa** | 7 | 93 |
| **Tsirang** | 9 | 91 |
| **Wangdue** | 8 | 92 |
| **Zhemgang** | 3 | 97 |
| **BHUTAN** | **9** | **91** |

* Note:

**List of calamities**

1. Insufficient irrigation supply
2. Unproductive land
3. Crop damaged by insects /diseases
4. Drought
5. Excessive rain
6. Hail storm/wind
7. Land slides/soil erosion

**Figure 8: Proportion of HHs affected by various natural calamities resulting in low production and quality of crops**

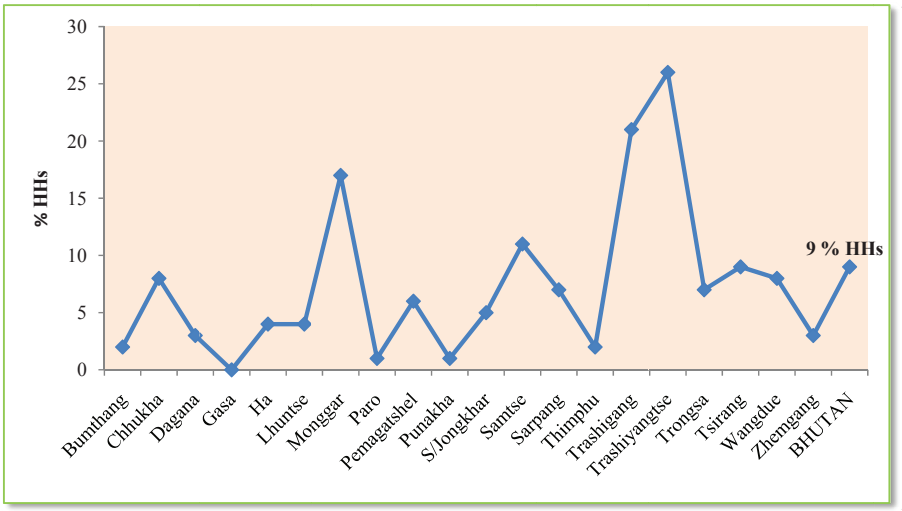



**Table 10.2: Estimated paddy area and quantity lost to the wild animals.**

| Dzongkhag | Area lost(Acres) | Quantity lost (MT) |
|---|---|---|
| Bumthang | 0.1 | 0.2 |
| Chhukha | 76 | 46 |
| Dagana | 133 | 90 |
| Ha | 18 | 12 |
| Lhuentse | 81 | 102 |
| Monggar | 28 | 21 |
| Paro | 100 | 109 |
| Pemagatshel | 3 | 1 |
| Punakha | 244 | 222 |
| Samdrup Jongkhar | 87 | 118 |
| Samtse | 112 | 106 |
| Sarpang | 163 | 150 |
| Thimphu | 3 | 7 |
| Trashigang | 59 | 63 |
| Trashiyangtse | 91 | 106 |
| Trongsa | 115 | 81 |
| Tsirang | 233 | 164 |
| Wangdue | 249 | 291 |
| Zhemgang | 66 | 38 |
| **BHUTAN** | **1,862** | **1,725** |

**Table 10.3: Estimated maize area and quantity lost to the wild animals.**

| Dzongkhag | Area lost(Acres) | Quantity lost (MT) |
|---|---|---|
| Chhukha | 210 | 159 |
| Dagana | 452 | 255 |
| Ha | 32 | 19 |
| Lhuentse | 233 | 300 |
| Monggar | 695 | 584 |
| Paro | 12 | 3 |
| Pemagatshel | 211 | 195 |
| Punakha | 21 | 19 |
| Samdrup Jongkhar | 399 | 490 |
| Samtse | 285 | 243 |
| Sarpang | 677 | 538 |
| Thimphu | 2 | 0.87 |
| Trashigang | 422 | 372 |
| Trashiyangtse | 166 | 229 |
| Trongsa | 145 | 143 |
| Tsirang | 757 | 503 |
| Wangdue | 44 | 26 |
| Zhemgang | 152 | 117 |
| **BHUTAN** | **4,914** | **4,194** |

**Table 10.4: Estimated wheat area and quantity lost to the wild animals.**

| Dzongkhag | Area lost(Acres) | Quantity lost(MT) |
|---|---|---|
| **Bumthang** | 24 | 21 |
| **Chhukha** | 9 | 7 |
| **Dagana** | 1 | 0.7 |
| **Ha** | 62 | 33 |
| **Lhuentse** | 0.9 | 0.9 |
| **Monggar** | 3 | 3 |
| **Paro** | 34 | 20 |
| **Pemagatshel** | 1 | 1 |
| **Punakha** | 9 | 4 |
| **Samdrup Jongkhar** | 1 | 1 |
| **Samtse** | 0.9 | 0.7 |
| **Sarpang** | 0.8 | 0.6 |
| **Thimphu** | 0.9 | 0.2 |
| **Trashigang** | 1 | 0.5 |
| **Trashiyangtse** | 0.7 | 2 |
| **Trongsa** | 4 | 2 |
| **Tsirang** | 3 | 1 |
| **Wangdue** | 12 | 5 |
| **Zhemgang** | 4 | 4 |
| **BHUTAN** | **173** | **108** |

**Table 10.5: Estimated barley area and quantity lost to the wild animals.**

| Dzongkhag | Area lost(Acres) | Quantity lost (MT) |
|---|---|---|
| Bumthang | 8 | 6 |
| Chhukha | 2 | 0.3 |
| Dagana | 0.2 | 0.06 |
| Gasa | 0.2 | 0.04 |
| Ha | 0.58 | 0.7 |
| Monggar | 40 | 28 |
| Paro | 0.4 | 0.2 |
| Pemagatshel | 0.2 | 0.04 |
| Punakha | 1 | 0.2 |
| Samdrup Jongkhar | 2 | 2 |
| Trashigang | 0.3 | 0.4 |
| Trashiyangtse | 0.1 | 0.06 |
| Trongsa | 5 | 3 |
| Tsirang | 0.2 | 0.1 |
| Wangdue | 0.9 | 0.4 |
| **BHUTAN** | **62** | **41** |

**Table 10.6: Estimated millet area and quantity lost to the wild animals.**

| Dzongkhag | Area lost(Acres) | Quantity lost(MT) |
|---|---|---|
| Bumthang | 1 | 1 |
| Chhukha | 22 | 11 |
| Dagana | 20 | 8 |
| Ha | 11 | 5 |
| Monggar | 0.20 | 0.1 |
| Pemagatshel | 4 | 3 |
| Samdrup Jongkhar | 1 | 0.6 |
| Samtse | 36 | 30 |
| Sarpang | 37 | 23 |
| Trashiyangtse | 13 | 8 |
| Trongsa | 2 | 0.3 |
| Tsirang | 15 | 4 |
| Wangdue | 0.1 | 0.4 |
| Zhemgang | 0.5 | 0.08 |
| **BHUTAN** | **165** | **94** |

**Table 10.7: Estimated buckwheat area and quantity lost to the wild animals.**

| Dzongkhag | Area lost(Acres) | Quantity lost (MT) |
|---|---|---|
| Bumthang | 85 | 62 |
| Chhukha | 2 | 0.7 |
| Dagana | 26 | 8 |
| Ha | 39 | 15 |
| Paro | 4 | 3 |
| Pemagatshel | 3 | 2 |
| Punakha | 3 | 1 |
| Samdrup Jongkhar | 10 | 6 |
| Samtse | 0.5 | 0.2 |
| Sarpang | 0.6 | 0.3 |
| Trashigang | 0.5 | 0.2 |
| Trongsa | 29 | 10 |
| Tsirang | 3 | 0.8 |
| Wangdue | 5 | 2 |
| Zhemgang | 6 | 5 |
| **BHUTAN** | **216** | **115** |

**Table 10.8: Estimated vegetable area and quantity lost to the wild animals.**

| Dzongkhag | Vegetable Area lost(Acres) | Quantity lost (MT) |
|---|---|---|
| Chhukha | 4 | 5 |
| Dagana | 22 | 7 |
| Ha | 2 | 2 |
| Lhuentse | 2 | 2 |
| Monggar | 0.5 | 0.7 |
| Paro | 7 | 14 |
| Pemagatshel | 1 | 0.3 |
| Punakha | 20 | 44 |
| Samdrup Jongkhar | 6 | 9 |
| Samtse | 12 | 7 |
| Sarpang | 1 | 6 |
| Thimphu | 1 | 1 |
| Trashigang | 2 | 2 |
| Trashiyangtse | 7 | 8 |
| Trongsa | 13 | 30 |
| Tsirang | 71 | 36 |
| Wangdue | 20 | 23 |
| **BHUTAN** | **191** | **196** |

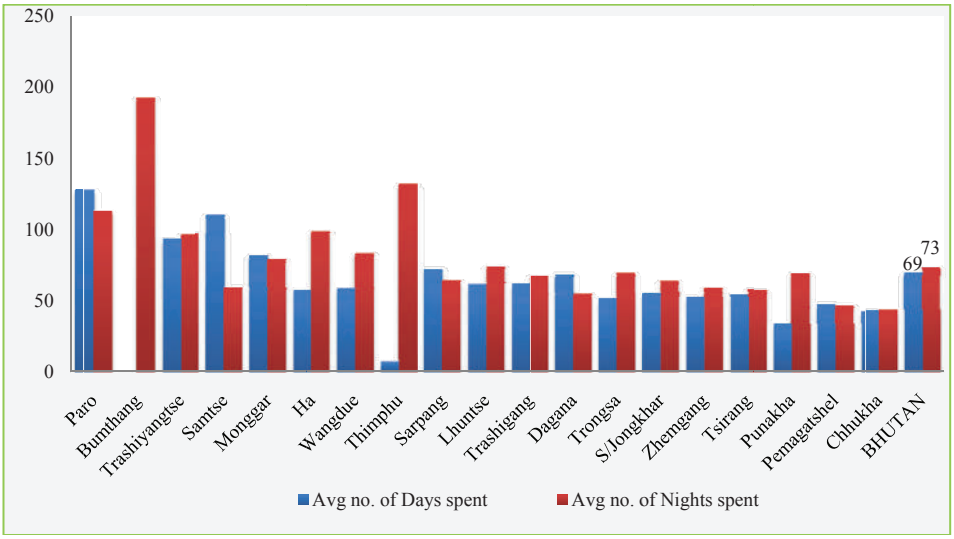
**Table 10.9: Estimated potato area and quantity lost to the wild animals.**

| Dzongkhag | Area Lost (Acres) | Quantity lost (MT) |
|---|---|---|
| **Bumthang** | 12 | 42 |
| **Chhukha** | 30 | 132 |
| **Dagana** | 5 | 0.87 |
| **Gasa** | 0.1 | 0.14 |
| **Ha** | 47 | 141 |
| **Lhuentse** | 14 | 16 |
| **Monggar** | 57 | 74 |
| **Paro** | 113 | 199 |
| **Pemagatshel** | 4 | 6 |
| **Samdrup Jongkhar** | 8 | 13 |
| **Samtse** | 0.5 | 0.4 |
| **Sarpang** | 0.6 | 0.2 |
| **Thimphu** | 10 | 27 |
| **Trashigang** | 57 | 101 |
| **Trashiyangtse** | 27 | 58 |
| **Trongsa** | 6 | 5 |
| **Tsirang** | 14 | 8 |
| **Wangdue** | 72 | 244 |
| **Zhemgang** | 0.18 | 0.11 |
| **BHUTAN** | **476** | **1,069** |

**11. Dzongkhag wise estimated average number of days and nights spent in guarding crops from wild animal damages in 2014.**

| Dzongkhag | Average number of Days spent to guard crops | Average number of Nights spent to guard crops |
|---|---|---|
| **Bumthang** | | 193 |
| **Chhukha** | 42 | 43 |
| **Dagana** | 68 | 54 |
| **Ha** | 57 | 99 |
| **Lhuentse** | 62 | 74 |
| **Monggar** | 81 | 79 |
| **Paro** | 127 | 112 |
| **Pemagatshel** | 48 | 47 |
| **Punakha** | 34 | 69 |
| **Samdrup Jongkhar** | 55 | 64 |
| **Samtse** | 110 | 59 |
| **Sarpang** | 72 | 64 |
| **Thimphu** | 7 | 132 |
| **Trashigang** | 62 | 67 |
| **Trashiyangtse** | 93 | 97 |
| **Trongsa** | 51 | 69 |
| **Tsirang** | 54 | 57 |
| **Wangdue** | 58 | 83 |
| **Zhemgang** | 53 | 59 |
| **BHUTAN** | **69** | **73** |

**Figure 9: Dzongkhag wise estimated average number of days and nights spent in guarding the crops from wild animals damages.**



## 12. Road Access in 2014

*Note: The road access refers to the accessibility of farming households to any type of roads that are pliable to motor vehicles*

**Table 12: Proportion of rural households by walking distance to the nearest motor able road point.**

| Dzongkhag | Less than 1 hour | 1 to 3 hours | 4 to 6 hours | Above 6 hours |
|---|---|---|---|---|
| **Bumthang** | 99 | 1 | 0 | 0 |
| **Chhukha** | 56 | 21 | 13 | 10 |
| **Dagana** | 73 | 24 | 1 | 2 |
| **Gasa** | 35 | 0 | 0 | 65 |
| **Ha** | 63 | 4 | 6 | 28 |
| **Lhuentse** | 79 | 18 | 2 | 1 |
| **Monggar** | 79 | 13 | 7 | 1 |
| **Paro** | 97 | 3 | 0 | 0 |
| **Pemagatshel** | 91 | 6 | 2 | 1 |
| **Punakha** | 92 | 8 | 0 | 0 |
| **Samdrup Jongkhar** | 56 | 17 | 13 | 13 |
| **Samtse** | 54 | 27 | 12 | 8 |
| **Sarpang** | 80 | 10 | 4 | 6 |
| **Thimphu** | 85 | 3 | 0 | 13 |
| **Trashigang** | 81 | 15 | 4 | 1 |
| **Trashiyangtse** | 76 | 15 | 8 | 1 |
| **Trongsa** | 73 | 22 | 3 | 3 |
| **Tsirang** | 84 | 14 | 2 | 0 |
| **Wangdue** | 79 | 15 | 1 | 5 |
| **Zhemgang** | 53 | 28 | 11 | 8 |
| **BHUTAN** | **75** | **14** | **6** | **5** |

# PART 2
# DZONGKHAG LEVEL STATISTICS

## 13. Cereal Crops

**Table 13.1: Paddy harvested area (acres), Production (MT) and Yield (kg/acre)**

| Dzongkhag | Area(in acres) | Production(in MT) | Yield (kgs/acre) |
|---|---|---|---|
| **Bumthang** | 164 | 257 | 1,573 |
| **Chhukha** | 1,866 | 2,482 | 1,330 |
| **Dagana** | 3,600 | 5,256 | 1,460 |
| **Gasa** | 120 | 146 | 1,221 |
| **Ha** | 138 | 170 | 1,230 |
| **Lhuentse** | 2,000 | 3,400 | 1,700 |
| **Monggar** | 920 | 1,104 | 1,200 |
| **Paro** | 4,000 | 8,800 | 2,200 |
| **Pemagatshel** | 64 | 60 | 930 |
| **Punakha** | 6,339 | 11,954 | 1,886 |
| **Samdrup Jongkhar** | 2,223 | 2,800 | 1,260 |
| **Samtse** | 7,200 | 9,360 | 1,300 |
| **Sarpang** | 4,200 | 6,309 | 1,502 |
| **Thimphu** | 460 | 966 | 2,100 |
| **Trashigang** | 2,800 | 4,088 | 1,460 |
| **Trashiyangtse** | 1,600 | 2,288 | 1,430 |
| **Trongsa** | 1,462 | 2,206 | 1,508 |
| **Tsirang** | 3,564 | 4,633 | 1,300 |
| **Wangdue** | 4,854 | 9,173 | 1,890 |
| **Zhemgang** | 1,300 | 1,586 | 1,220 |
| **BHUTAN** | **48,873** | **77,038** | **1,576** |

**Table 13.2: Maize harvested area (acres), Production (MT) and Yield (kg/acre)**

| Dzongkhag | Area(in acres) | Production(in MT) | Yield (kg/acre) |
|---|---|---|---|
| **Chhukha** | 3,000 | 2,571 | 857 |
| **Dagana** | 6,300 | 7,390 | 1,173 |
| **Ha** | 300 | 255 | 850 |
| **Lhuentse** | 2,272 | 3,976 | 1,750 |
| **Monggar** | 10,277 | 15,416 | 1,500 |
| **Paro** | 59 | 79 | 1,351 |
| **Pemagatshel** | 4,500 | 6,750 | 1,500 |
| **Punakha** | 231 | 328 | 1,420 |
| **Samdrup Jongkhar** | 5,200 | 7,010 | 1,348 |
| **Samtse** | 5,741 | 6,572 | 1,145 |
| **Sarpang** | 3,847 | 3,793 | 986 |
| **Thimphu** | 5 | 4 | 833 |
| **Trashigang** | 5,324 | 8,417 | 1,581 |
| **Trashiyangtse** | 1,800 | 3,138 | 1,743 |
| **Trongsa** | 1,186 | 1,660 | 1,400 |
| **Tsirang** | 5,000 | 5,090 | 1,018 |
| **Wangdue** | 300 | 316 | 1,054 |
| **Zhemgang** | 3,597 | 4,478 | 1,245 |
| **BHUTAN** | **58,938** | **77,244** | **1,311** |

**Table 13.3: Wheat harvested area (acres), Production (MT) and Yield (kg/acre)**

| Dzongkhag | Harvested Area(Acres) | Production(MT) | Yield(kg/acre) |
|---|---|---|---|
| **Bumthang** | 440 | 379 | 861 |
| **Chhukha** | 220 | 170 | 774 |
| **Dagana** | 109 | 61 | 566 |
| **Gasa** | 19 | 17 | 915 |
| **Ha** | 560 | 400 | 715 |
| **Lhuentse** | 43 | 34 | 789 |
| **Monggar** | 175 | 91 | 522 |
| **Paro** | 654 | 402 | 614 |
| **Pemagatshel** | 15 | 9 | 591 |
| **Punakha** | 732 | 540 | 738 |
| **Samdrup Jongkhar** | 147 | 122 | 829 |
| **Samtse** | 103 | 54 | 520 |
| **Sarpang** | 8 | 4 | 458 |
| **Thimphu** | 121 | 107 | 880 |
| **Trashigang** | 132 | 112 | 849 |
| **Trashiyangtse** | 26 | 19 | 720 |
| **Trongsa** | 368 | 267 | 726 |
| **Tsirang** | 112 | 56 | 500 |
| **Wangdue** | 878 | 592 | 674 |
| **Zhemgang** | 47 | 29 | 612 |
| **Bhutan** | **4,910** | **3,465** | **706** |

**Table 13.4: Barley harvested area (acres), Production (MT) and Yield (kg/acre)**

| Dzongkhag | Harvested Area(Acres) | Production(MT) | Yield(kg/acre) |
|---|---|---|---|
| **Bumthang** | 206 | 202 | 976 |
| **Chhukha** | 69 | 38 | 553 |
| **Dagana** | 12 | 6 | 494 |
| **Gasa** | 162 | 169 | 1,045 |
| **Ha** | 41 | 25 | 611 |
| **Lhuentse** | 8 | 9 | 1,162 |
| **Monggar** | 922 | 591 | 641 |
| **Paro** | 87 | 49 | 564 |
| **Pemagatshel** | 59 | 19 | 330 |
| **Punakha** | 45 | 13 | 291 |
| **Samdrup Jongkhar** | 76 | 38 | 499 |
| **Samtse** | 9 | 6 | 663 |
| **Sarpang** | 4 | 2 | 509 |
| **Thimphu** | 10 | 12 | 1,216 |
| **Trashi gang** | 241 | 223 | 925 |
| **Trashiyangtse** | 13 | 11 | 827 |
| **Trongsa** | 268 | 191 | 711 |
| **Tsirang** | 22 | 10 | 432 |
| **Wangdue** | 168 | 125 | 743 |
| **Zhemgang** | 24 | 14 | 574 |
| **BHUTAN** | **2,447** | **1,753** | **716** |

**Table 13.5: Buckwheat harvested area (acres), Production (MT) and Yield (kg/acre)**

| Dzongkhag | Harvested Area(Acres) | Production(in MT) | Yield(kg/acre) |
|---|---|---|---|
| **Bumthang** | 592 | 433 | 731 |
| **Chhukha** | 335 | 194 | 580 |
| **Dagana** | 570 | 206 | 361 |
| **Gasa** | 0.2 | 0.21 | 1,000 |
| **Ha** | 349 | 226 | 648 |
| **Lhuentse** | 10 | 5 | 500 |
| **Monggar** | 139 | 51 | 368 |
| **Paro** | 149 | 112 | 749 |
| **Pemagatshel** | 180 | 93 | 517 |
| **Punakha** | 188 | 87 | 462 |
| **SamdrupJongkhar** | 584 | 393 | 673 |
| **Samtse** | 127 | 73 | 575 |
| **Sarpang** | 90 | 42 | 469 |
| **Trashigang** | 294 | 160 | 543 |
| **Trashiyangtse** | 32 | 20 | 634 |
| **Trongsa** | 453 | 203 | 448 |
| **Tsirang** | 128 | 47 | 363 |
| **Wangdue** | 365 | 168 | 460 |
| **Zhemgang** | 176 | 71 | 403 |
| **BHUTAN** | **4,762** | **2,583** | **543** |

**Table 13.6: Millet harvested area (acres), Production (MT) and Yield (kg/acre)**

| Dzongkhag | Harvested Area (Acres) | Production (in MT) | Yield(Kg/acre) |
|---|---|---|---|
| **Chhukha** | 482 | 254 | 527 |
| **Dagana** | 423 | 230 | 544 |
| **Ha** | 79 | 29 | 371 |
| **Lhuentse** | 58 | 48 | 835 |
| **Monggar** | 51 | 23 | 452 |
| **Paro** | 16 | 9 | 569 |
| **Pemagatshel** | 261 | 177 | 678 |
| **Punakha** | 1.4 | 0.66 | 473 |
| **SamdrupJongkhar** | 172 | 104 | 601 |
| **Samtse** | 912 | 486 | 533 |
| **Sarpang** | 847 | 466 | 550 |
| **Thimphu** | 0.88 | 0.176 | 200 |
| **Trashigang** | 46 | 31 | 667 |
| **Trashiyangtse** | 209 | 172 | 822 |
| **Trongsa** | 47 | 21 | 449 |
| **Tsirang** | 465 | 214 | 460 |
| **Wangdue** | 25 | 12 | 490 |
| **Zhemgang** | 168 | 85 | 505 |
| **Bhutan** | **4,264** | **2,362** | **554** |

## 14. Vegetable Crops

**Table 14.1: Potato harvested area (acres), Production (MT) and Yield (kg/acre)**

| Dzongkhag | Harvested Area(Acres) | Production(MT) | Yield(kg/acre) |
|---|---|---|---|
| **Bumthang** | 836 | 6,019 | 7,200 |
| **Chhukha** | 918 | 6,061 | 6,601 |
| **Dagana** | 120 | 159 | 1,329 |
| **Gasa** | 67 | 187 | 2,814 |
| **Haa** | 418 | 1,873 | 4,480 |
| **Lhuentse** | 338 | 1,183 | 3,501 |
| **Monggar** | 2,045 | 4,975 | 2,432 |
| **Paro** | 754 | 3,601 | 4,777 |
| **Pemagatshel** | 570 | 1,375 | 2,412 |
| **Punakha** | 71 | 118 | 1,663 |
| **Samdrup Jongkhar** | 718 | 1,364 | 1,900 |
| **Samtse** | 111 | 220 | 1,985 |
| **Sarpang** | 120 | 93 | 773 |
| **Thimphu** | 202 | 1,297 | 6,419 |
| **Trashigang** | 1,797 | 5,356 | 2,981 |
| **Trashiyangtse** | 594 | 2,107 | 3,547 |
| **Trongsa** | 113 | 377 | 3,342 |
| **Tsirang** | 241 | 240 | 997 |
| **Wangdue** | 2,631 | 16,820 | 6,393 |
| **Zhemgang** | 121 | 187 | 1,536 |
| **BHUTAN** | **12,785** | **53,612** | **4,194** |

**Table 14.2: Asparagus harvested area (acres), Production (MT) and Yield (kg/acre)**

| Dzongkhag | Harvested Area(Acres) | Production(MT) | Yield(kg/acre) |
|---|---|---|---|
| **Bumthang** | 1.3 | 0.9 | 672 |
| **Chhukha** | 7 | 6 | 797 |
| **Dagana** | 13 | 4 | 287 |
| **Gasa** | 0.1 | 0.08 | 600 |
| **Ha** | 10 | 3 | 296 |
| **Lhuentse** | 2 | 0.33 | 189 |
| **Monggar** | 14 | 9 | 673 |
| **Paro** | 91 | 109 | 1,200 |
| **Pemagatshel** | 4 | 0.76 | 171 |
| **Punakha** | 34 | 30 | 882 |
| **SamdrupJongkhar** | 2 | 0.88 | 521 |
| **Samtse** | 0.3 | 0.22 | 882 |
| **Sarpang** | 0.0 | 0.01 | 500 |
| **Thimphu** | 18 | 11 | 607 |
| **Trashigang** | 30 | 15 | 503 |
| **Trashiyangtse** | 13 | 4 | 264 |
| **Trongsa** | 3 | 2 | 540 |
| **Tsirang** | 17 | 2 | 104 |
| **Wangdue** | 15 | 8 | 512 |
| **Zhemgang** | 0.13 | 0.08 | 588 |
| **BHUTAN** | **275** | **205** | **745** |

**Table 14.3: Chilli harvested area (acres), Production (MT) and Yield (kg/acre)**

| Dzongkhag | Harvested Areas(Acres) | Production(MT) | Yield(Kg/acre) |
|---|---|---|---|
| **Bumthang** | 37 | 100 | 2,717 |
| **Chhukha** | 246 | 431 | 1,752 |
| **Dagana** | 161 | 168 | 1,049 |
| **Gasa** | 14 | 20 | 1,454 |
| **Ha** | 55 | 75 | 1,359 |
| **Lhuentse** | 259 | 555 | 2,143 |
| **Monggar** | 467 | 765 | 1,637 |
| **Paro** | 600 | 1,983 | 3,305 |
| **Pemagatshel** | 188 | 209 | 1,112 |
| **Punakha** | 378 | 900 | 2,381 |
| **Samdrup Jongkhar** | 183 | 295 | 1,612 |
| **Samtse** | 66 | 32 | 487 |
| **Sarpang** | 58 | 37 | 647 |
| **Thimphu** | 96 | 396 | 4,124 |
| **Trashigang** | 600 | 1,046 | 1,744 |
| **Trashi yangtse** | 184 | 352 | 1,919 |
| **Trongsa** | 118 | 173 | 1,458 |
| **Tsirang** | 210 | 146 | 696 |
| **Wangdue** | 350 | 828 | 2,364 |
| **Zhemgang** | 68 | 75 | 1,099 |
| **BHUTAN** | **4,337** | **8,586** | **1,980** |

**Table 14.4: Cabbage harvested area (acres), Production (MT) and Yield (kg/acre)**

| Dzongkhag | Harvested Areas(Acres) | Production(MT) | Yield(kg/acre) |
|---|---|---|---|
| **Bumthang** | 36 | 124 | 3,451 |
| **Chhukha** | 74 | 197 | 2,658 |
| **Dagana** | 88 | 120 | 1,369 |
| **Gasa** | 7 | 13 | 1,952 |
| **Ha** | 32 | 89 | 2,753 |
| **Lhuentse** | 84 | 97 | 1,166 |
| **Monggar** | 181 | 351 | 1,942 |
| **Paro** | 260 | 1,280 | 4,929 |
| **Pemagatshel** | 76 | 81 | 1,068 |
| **Punakha** | 53 | 117 | 2,224 |
| **SamdrupJongkhar** | 87 | 143 | 1,637 |
| **Samtse** | 72 | 65 | 905 |
| **Sarpang** | 39 | 58 | 1,491 |
| **Thimphu** | 28 | 165 | 5,935 |
| **Trashigang** | 401 | 505 | 1,259 |
| **Trashiyangtse** | 43 | 123 | 2,879 |
| **Trongsa** | 57 | 162 | 2,835 |
| **Tsirang** | 165 | 461 | 2,790 |
| **Wangdue** | 62 | 177 | 2,858 |
| **Zhemgang** | 40 | 34 | 839 |
| **BHUTAN** | **1,884** | **4,364** | **2,316** |

**Table 14.5: Cauliflower harvested area (acres), Production (MT) and Yield (kg/acre)**

| Dzongkhag | Harvested Area(Acres) | Production(MT) | Yield(Kg/acre) |
|---|---|---|---|
| **Bumthang** | 12 | 45 | 3,757 |
| **Chhukha** | 48 | 67 | 1,394 |
| **Dagana** | 26 | 46 | 1,780 |
| **Gasa** | 3 | 6 | 2,261 |
| **Ha** | 12 | 24 | 2,100 |
| **Lhuentse** | 46 | 84 | 1,824 |
| **Monggar** | 160 | 241 | 1,505 |
| **Paro** | 25 | 50 | 2,028 |
| **Pemagatshel** | 30 | 25 | 847 |
| **Punakha** | 14 | 22 | 1,530 |
| **Samdrup Jongkhar** | 46 | 78 | 1,692 |
| **Samtse** | 78 | 81 | 1,039 |
| **Sarpang** | 33 | 34 | 1,033 |
| **Thimphu** | 40 | 236 | 5,906 |
| **Trashigang** | 265 | 318 | 1,200 |
| **Trashiyangtse** | 30 | 60 | 2,009 |
| **Trongsa** | 21 | 32 | 1,507 |
| **Tsirang** | 108 | 146 | 1,350 |
| **Wangdue** | 26 | 41 | 1,600 |
| **Zhemgang** | 12 | 12 | 967 |
| **BHUTAN** | **1,035** | **1,650** | **1,594** |

**Table 14.6: Carrot harvested area (acres), Production (MT) and Yield (kg/acre)**

| Dzongkhag | Harvested Area(Acres) | Production(MT) | Yield(Kg/acre) |
|---|---|---|---|
| **Bumthang** | 6 | 19 | 3,246 |
| **Chhukha** | 60 | 113 | 1,884 |
| **Dagana** | 12 | 12 | 990 |
| **Gasa** | 2 | 5 | 2,177 |
| **Ha** | 14 | 48 | 3,375 |
| **Lhuentse** | 15 | 25 | 1,622 |
| **Monggar** | 41 | 61 | 1,497 |
| **Paro** | 39 | 77 | 1,950 |
| **Pemagatshel** | 29 | 17 | 594 |
| **Punakha** | 25 | 42 | 1,700 |
| **Samdrup Jongkhar** | 17 | 23 | 1,352 |
| **Samtse** | 8 | 4 | 439 |
| **Sarpang** | 5 | 4 | 841 |
| **Thimphu** | 19 | 77 | 4,047 |
| **Trashigang** | 50 | 59 | 1,174 |
| **Trashiyangtse** | 10 | 15 | 1,519 |
| **Trongsa** | 17 | 25 | 1,483 |
| **Tsirang** | 33 | 16 | 490 |
| **Wangdue** | 38 | 100 | 2,600 |
| **Zhemgang** | 3 | 3 | 926 |
| **BHUTAN** | **444** | **746** | **1,679** |

**Table 14.7: Radish harvested area (acres), Production (MT) and Yield (kg/acre)**

| Dzongkhag | Harvested Area(Acres) | Production(MT) | Yield(kg/acre) |
|---|---|---|---|
| **Bumthang** | 14 | 74 | 5,311 |
| **Chhukha** | 107 | 223 | 2,086 |
| **Dagana** | 125 | 294 | 2,355 |
| **Gasa** | 11 | 20 | 1,775 |
| **Ha** | 48 | 204 | 4,275 |
| **Lhuentse** | 114 | 143 | 1,260 |
| **Monggar** | 373 | 769 | 2,062 |
| **Paro** | 44 | 117 | 2,679 |
| **Pemagatshel** | 154 | 279 | 1,810 |
| **Punakha** | 80 | 143 | 1,790 |
| **Samdrup Jongkhar** | 161 | 375 | 2,328 |
| **Samtse** | 138 | 112 | 811 |
| **Sarpang** | 46 | 74 | 1,615 |
| **Thimphu** | 40 | 237 | 5,925 |
| **Trashigang** | 444 | 615 | 1,388 |
| **Trashiyangtse** | 41 | 151 | 3,668 |
| **Trongsa** | 65 | 125 | 1,912 |
| **Tsirang** | 233 | 365 | 1,567 |
| **Wangdue** | 205 | 644 | 3,143 |
| **Zhemgang** | 49 | 55 | 1,115 |
| **BHUTAN** | **2,491** | **5,021** | **2,015** |

**Table 14.8: Turnip harvested area (acres), Production (MT) and Yield (kg/acre)**

| Dzongkhag | Harvested Area(Acres) | Production(MT) | Yield(kg/acre) |
|---|---|---|---|
| **Bumthang** | 36 | 228 | 6,335 |
| **Chhukha** | 86 | 576 | 6,710 |
| **Dagana** | 17 | 72 | 4,212 |
| **Gasa** | 7 | 13 | 1,707 |
| **Ha** | 270 | 2,052 | 7,600 |
| **Lhuentse** | 4 | 7 | 1,600 |
| **Monggar** | 8 | 9 | 1,210 |
| **Paro** | 119 | 499 | 4,212 |
| **Pemagatshel** | 5 | 7 | 1,438 |
| **Punakha** | 25 | 48 | 1,960 |
| **Samdrup Jongkhar** | 6 | 11 | 1,817 |
| **Samtse** | 1 | 2 | 1,280 |
| **Sarpang** | 1 | 0 | 460 |
| **Thimphu** | 30 | 181 | 5,960 |
| **Trashigang** | 8 | 48 | 5,859 |
| **Trashiyangtse** | 1 | 2 | 1,754 |
| **Trongsa** | 14 | 61 | 4,239 |
| **Tsirang** | 14 | 13 | 980 |
| **Wangdue** | 1,011 | 6,137 | 6,071 |
| **Zhemgang** | 1 | 2 | 1,900 |
| **BHUTAN** | **1,664** | **9,967** | **5,991** |

**Table 14.9: Beans harvested area (acres), Production (MT) and Yield (kg/acre)**

| Dzongkhag | Harvested Area(Acres) | Production(MT) | Yield(kg/acre) |
|---|---|---|---|
| **Bumthang** | 6 | 18 | 2,974 |
| **Chhukha** | 122 | 132 | 1,080 |
| **Dagana** | 145 | 94 | 652 |
| **Gasa** | 3 | 6 | 2,016 |
| **Ha** | 17 | 24 | 1,373 |
| **Lhuentse** | 122 | 120 | 982 |
| **Monggar** | 321 | 335 | 1,041 |
| **Paro** | 114 | 262 | 2,300 |
| **Pemagatshel** | 124 | 89 | 714 |
| **Punakha** | 272 | 563 | 2,072 |
| **Samdrup Jongkhar** | 151 | 202 | 1,344 |
| **Samtse** | 194 | 154 | 793 |
| **Sarpang** | 61 | 50 | 811 |
| **Thimphu** | 15 | 47 | 3,136 |
| **Trashigang** | 200 | 248 | 1,242 |
| **Trashiyangtse** | 39 | 60 | 1,546 |
| **Trongsa** | 45 | 60 | 1,318 |
| **Tsirang** | 283 | 159 | 561 |
| **Wangdue** | 102 | 174 | 1,700 |
| **Zhemgang** | 54 | 34 | 636 |
| **BHUTAN** | **2,391** | **2,830** | **1,184** |

**Table 14.10: Peas harvested area (acres), Production (MT) and Yield (kg/acre)**

| Dzongkhag | Harvested Area(Acres) | Produced(MT) | Yield(Kg/acre) |
|---|---|---|---|
| **Bumthang** | 10 | 5 | 529 |
| **Chhukha** | 60 | 69 | 1,157 |
| **Dagana** | 23 | 21 | 899 |
| **Gasa** | 2 | 3 | 1,865 |
| **Ha** | 54 | 56 | 1,033 |
| **Lhuentse** | 8 | 11 | 1,420 |
| **Monggar** | 69 | 116 | 1,690 |
| **Paro** | 181 | 382 | 2,115 |
| **Pemagatshel** | 26 | 12 | 472 |
| **Punakha** | 61 | 57 | 943 |
| **Samdrup Jongkhar** | 31 | 39 | 1,275 |
| **Samtse** | 9 | 6 | 660 |
| **Sarpang** | 6 | 4 | 722 |
| **Thimphu** | 19 | 38 | 1,974 |
| **Trashigang** | 30 | 26 | 875 |
| **Trashiyangtse** | 10 | 11 | 1,040 |
| **Trongsa** | 11 | 13 | 1,220 |
| **Tsirang** | 74 | 59 | 796 |
| **Wangdue** | 28 | 39 | 1,400 |
| **Zhemgang** | 2 | 2 | 905 |
| **BHUTAN** | **712** | **970** | **1,362** |

**Table 14.11: Tomato harvested area (acres), Production (MT) and Yield (kg/acre)**

| Dzongkhag | Harvested Area(Acres) | Production(MT) | Yield(kg/acre) |
|---|---|---|---|
| **Bumthang** | 8 | 16 | 2,043 |
| **Chhukha** | 31 | 50 | 1,607 |
| **Dagana** | 37 | 66 | 1,797 |
| **Ha** | 8 | 9 | 1,105 |
| **Lhuentse** | 15 | 13 | 894 |
| **Monggar** | 36 | 59 | 1,633 |
| **Paro** | 34 | 55 | 1,615 |
| **Pemagatshel** | 12 | 17 | 1,420 |
| **Punakha** | 36 | 71 | 1,963 |
| **Samdrup Jongkhar** | 30 | 39 | 1,299 |
| **Samtse** | 53 | 62 | 1,172 |
| **Sarpang** | 46 | 48 | 1,049 |
| **Thimphu** | 24 | 64 | 2,671 |
| **Trashigang** | 43 | 66 | 1,530 |
| **Trashiyangtse** | 18 | 32 | 1,767 |
| **Trongsa** | 14 | 28 | 1,985 |
| **Tsirang** | 72 | 69 | 956 |
| **Wangdue** | 47 | 124 | 2,629 |
| **Zhemgang** | 9 | 12 | 1,306 |
| **BHUTAN** | **573** | **899** | **1,570** |

**Table 14.12: Broccoli harvested area (acres), Production (MT) and Yield (kg/acre)**

| Dzongkhag | Harvested Area(Acres) | Production(MT) | Yield(kg/acre) |
|---|---|---|---|
| **Bumthang** | 10 | 31 | 3,065 |
| **Chhukha** | 50 | 80 | 1,600 |
| **Dagana** | 42 | 63 | 1,493 |
| **Gasa** | 4 | 4 | 993 |
| **Ha** | 7 | 9 | 1,290 |
| **Lhuentse** | 26 | 35 | 1,360 |
| **Monggar** | 120 | 149 | 1,240 |
| **Paro** | 42 | 61 | 1,464 |
| **Pemagatshel** | 9 | 5 | 566 |
| **Punakha** | 130 | 150 | 1,154 |
| **Samdrup Jongkhar** | 28 | 36 | 1,281 |
| **Samtse** | 36 | 31 | 860 |
| **Sarpang** | 76 | 36 | 480 |
| **Thimphu** | 27 | 53 | 1,954 |
| **Trashigang** | 92 | 111 | 1,212 |
| **Trashiyangtse** | 18 | 24 | 1,343 |
| **Trongsa** | 21 | 17 | 796 |
| **Tsirang** | 95 | 78 | 818 |
| **Wangdue** | 33 | 32 | 980 |
| **Zhemgang** | 9 | 4 | 453 |
| **BHUTAN** | **875** | **1,010** | **1,154** |

**Table 14.13: Onion bulb harvested area (acres), Production (MT) and Yield (kg/acre)**

| Dzongkhag | Harvested Area(Acres) | Production(MT) | Yield(kg/acre) |
|---|---|---|---|
| **Chhukha** | 26 | 29 | 1,121 |
| **Dagana** | 36 | 29 | 817 |
| **Ha** | 1 | 1 | 1,097 |
| **Lhuentse** | 29 | 34 | 1,168 |
| **Monggar** | 49 | 45 | 920 |
| **Paro** | 13 | 16 | 1,215 |
| **Pemagatshel** | 15 | 11 | 700 |
| **Punakha** | 33 | 39 | 1,181 |
| **Samdrup Jongkhar** | 64 | 58 | 900 |
| **Samtse** | 27 | 20 | 723 |
| **Sarpang** | 36 | 33 | 910 |
| **Thimphu** | 4 | 4 | 1,017 |
| **Trashigang** | 260 | 154 | 591 |
| **Trashiyangtse** | 30 | 29 | 970 |
| **Trongsa** | 9 | 6 | 700 |
| **Tsirang** | 100 | 180 | 1,800 |
| **Wangdue** | 60 | 66 | 1,100 |
| **Zhemgang** | 5 | 3 | 625 |
| **BHUTAN** | **798** | **757** | **949** |

**Table 14.14: Garlic harvested area (acres), Production (MT) and Yield (kg/acre)**

| Dzongkhag | Harvested Area(Acres) | Production(MT) | Yield(kg/acre) |
|---|---|---|---|
| **Bumthang** | 14 | 13 | 931 |
| **Chhukha** | 9 | 10 | 1,148 |
| **Dagana** | 64 | 27 | 416 |
| **Gasa** | 11 | 9 | 793 |
| **Ha** | 16 | 11 | 672 |
| **Lhuentse** | 161 | 102 | 634 |
| **Monggar** | 158 | 100 | 635 |
| **Paro** | 9 | 7 | 764 |
| **Pemagatshel** | 68 | 26 | 385 |
| **Punakha** | 161 | 74 | 463 |
| **Samdrup Jongkhar** | 65 | 44 | 679 |
| **Samtse** | 20 | 10 | 504 |
| **Sarpang** | 9 | 4 | 470 |
| **Thimphu** | 3 | 3 | 968 |
| **Trashigang** | 239 | 209 | 876 |
| **Trashiyangtse** | 72 | 65 | 907 |
| **Trongsa** | 30 | 24 | 790 |
| **Tsirang** | 83 | 42 | 506 |
| **Wangdue** | 70 | 51 | 724 |
| **Zhemgang** | 18 | 14 | 745 |
| **BHUTAN** | **1,282** | **846** | **660** |

**Table 14.15: Other Vegetables Production (MT)**

| Dzongkhag | Egg Plant Production(MT) | Lady Finger Production(MT) | Green leaves Production(MT) |
|---|---|---|---|
| **Bumthang** | 0.03 | - | 19 |
| **Chhukha** | 10 | 1.19 | 174 |
| **Dagana** | 30 | 4.30 | 179 |
| **Gasa** | - | - | 11 |
| **Ha** | 4 | 0.08 | 24 |
| **Lhuentse** | 38 | 0.30 | 78 |
| **Monggar** | 40 | 0.82 | 136 |
| **Paro** | 37 | 0.08 | 36 |
| **Pemagatshel** | 12 | 0.52 | 67 |
| **Punakha** | 52 | 2.01 | 155 |
| **Samdrup Jongkhar** | 26 | 4.94 | 162 |
| **Samtse** | 18 | 1.98 | 180 |
| **Sarpang** | 17 | 2.25 | 86 |
| **Thimphu** | 6 | - | 91 |
| **Trashigang** | 24 | 2.26 | 109 |
| **Trashiyangtse** | 32 | 0.16 | 57 |
| **Trongsa** | 29 | 2.03 | 56 |
| **Tsirang** | 36 | 4.18 | 172 |
| **Wangdue** | 68 | 0.46 | 121 |
| **Zhemgang** | 6 | 0.34 | 26 |
| **BHUTAN** | **485** | **28** | **1,938** |

**Table 14.16: Tree Tomato Production (MT)**

| Dzongkhag | Production(MT) |
|---|---|
| Chhukha | 8 |
| Dagana | 18 |
| Gasa | 2 |
| Ha | 2 |
| Lhuentse | 40 |
| Monggar | 77 |
| Pemagatshel | 18 |
| Punakha | 66 |
| SamdrupJongkhar | 29 |
| Samtse | 6 |
| Sarpang | 20 |
| Trashigang | 46 |
| Trashiyangtse | 11 |
| Trongsa | 7 |
| Tsirang | 30 |
| Wangdue | 35 |
| Zhemgang | 7 |
| **BHUTAN** | **424** |

**Table 14.17: Mushroom Cultivated Production (MT)**

| Dzongkhag | Production (MT) |
|---|---|
| Chhukha | 5 |
| Dagana | 0.46 |
| Gasa | 0.41 |
| Ha | 0.10 |
| Lhuentse | 0.02 |
| Monggar | 4 |
| Paro | 1.00 |
| Pemagatshel | 0.15 |
| Punakha | 0.83 |
| Samdrup Jongkhar | 0.39 |
| Samtse | 0.26 |
| Sarpang | 0.42 |
| Thimphu | 0.39 |
| Trashigang | 2 |
| Trashiyangtse | 0.50 |
| Trongsa | 0.43 |
| Tsirang | 0.09 |
| Wangdue | 0.60 |
| Zhemgang | 0.37 |
| **BHUTAN** | **17** |

**Table 14.18: Cucurbits Production (MT)**

| Dzongkhag | Cucumber Production (MT) | Pumpkin Production (MT) | Squash Production (MT) | Gourds Production (MT) |
|---|---|---|---|---|
| **Bumthang** | 8 | 11 | - | 0.3 |
| **Chhukha** | 103 | 218 | 230 | 18 |
| **Dagana** | 142 | 354 | 142 | 10 |
| **Gasa** | 2 | 2 | 3 | - |
| **Ha** | 14 | 27 | 15 | 5 |
| **Lhuentse** | 147 | 230 | 40 | 5 |
| **Monggar** | 265 | 400 | 240 | 0.4 |
| **Paro** | 32 | 230 | 1 | - |
| **Pemagatshel** | 145 | 352 | 72 | 13 |
| **Punakha** | 577 | 221 | 248 | 67 |
| **Samdrup Jongkhar** | 233 | 408 | 120 | 22 |
| **Samtse** | 69 | 208 | 219 | 31 |
| **Sarpang** | 53 | 131 | 180 | 12 |
| **Thimphu** | 28 | 38 | 0 | 3 |
| **Trashigang** | 256 | 365 | 90 | 30 |
| **Trashiyangtse** | 102 | 371 | 40 | 9 |
| **Trongsa** | 48 | 60 | 21 | 3 |
| **Tsirang** | 127 | 260 | 420 | 25 |
| **Wangdue** | 112 | 126 | 24 | 12 |
| **Zhemgang** | 22 | 69 | 14 | 5 |
| **BHUTAN** | **2,484** | **4,081** | **2,118** | **270** |

## 15. Spices

**Table 15.1: Ginger Harvested Area (acres), Production (MT) and Yield (Kg/acre)**

| Dzongkhag | Harvested Area(Acres) | Production(MT) | Yield(Kg/acre) |
|---|---|---|---|
| **Chhukha** | 647 | 767 | 1,185 |
| **Dagana** | 50 | 49 | 967 |
| **Ha** | 6 | 2 | 383 |
| **Lhuentse** | 4 | 2 | 459 |
| **Monggar** | 46 | 37 | 815 |
| **Paro** | 0.85 | 0.08 | 92 |
| **Pemagatshel** | 121 | 155 | 1,283 |
| **Punakha** | 8 | 4 | 539 |
| **Samdrup Jongkhar** | 491 | 1,182 | 2,409 |
| **Samtse** | 622 | 1,616 | 2,596 |
| **Sarpang** | 307 | 523 | 1,703 |
| **Trashigang** | 14 | 12 | 864 |
| **Trashiyangtse** | 10 | 12 | 1,239 |
| **Trongsa** | 8 | 9 | 1,123 |
| **Tsirang** | 244 | 548 | 2,252 |
| **Wangdue** | 4 | 6 | 1,536 |
| **Zhemgang** | 68 | 58 | 847 |
| **BHUTAN** | **2,651** | **4,983** | **1,880** |

**Table 15.2: Cardamom Harvested Area (acres), Production (MT) and Yield (kg/acre)**

| Dzongkhag | Harvested Area(Acres) | Production(MT) | Yield(kg/acre) |
|---|---|---|---|
| **Chhukha** | 1,505 | 256 | 170 |
| **Dagana** | 754 | 124 | 164 |
| **Ha** | 611 | 93 | 153 |
| **Lhuentse** | 2 | 0.13 | 73 |
| **Monggar** | 0.80 | 0.06 | 80 |
| **Pemagatshel** | 11 | 2 | 207 |
| **Samdrup Jongkhar** | 166 | 23 | 140 |
| **Samtse** | 4,619 | 1,154 | 250 |
| **Sarpang** | 698 | 91 | 130 |
| **Trashigang** | 6 | 0.98 | 178 |
| **Trongsa** | 78 | 6 | 72 |
| **Tsirang** | 199 | 25 | 125 |
| **Zhemgang** | 35 | 6 | 168 |
| **BHUTAN** | **8,683** | **1,781** | **205** |

## 16. Oil Seeds

**Table 16.1: Ground nut Harvested Area (acres), Production (MT) and Yield (kg/acre)**

| Dzongkhag | Harvested Area(Acres) | Production (MT) | Yield(Kg/acre) |
|---|---|---|---|
| Chhukha | 0.98 | 0.2 | 200 |
| Dagana | 1.07 | 0.6 | 592 |
| Monggar | 37 | 27 | 727 |
| Pemagatshel | 72 | 45 | 629 |
| Punakha | 8 | 8 | 916 |
| Samdrup Jongkhar | 8 | 8 | 1049 |
| Samtse | 0.7 | 0.5 | 645 |
| Sarpang | 4 | 0.2 | 47 |
| Trashigang | 124 | 93 | 748 |
| Trashiyangtse | 81 | 75 | 924 |
| Trongsa | 1 | 0.1 | 133 |
| Tsirang | 19 | 9 | 458 |
| Wangdue | 0.3 | 0.1 | 259 |
| Zhemgang | 0.5 | 0.1 | 250 |
| **BHUTAN** | **357** | **266** | **746** |

**Table 16.2: Sunflower Harvested Area (acres), Production (MT) and Yield (kg/acre)**

| Dzongkhag | Harvested Area(Acres) | Production(MT) | Yield(kg/acre) |
|---|---|---|---|
| Bumthang | 2 | 0.8 | 350 |
| Chhukha | 2 | 0.5 | 192 |
| Ha | 0.2 | 0.09 | 429 |
| Paro | 2 | 0.8 | 450 |
| Punakha | 3 | 0.7 | 247 |
| Samdrup Jongkhar | 1 | 0.4 | 381 |
| Samtse | 1 | 0.2 | 178 |
| Trashigang | 5 | 1.9 | 420 |
| Trongsa | 0.3 | 0.01 | 24 |
| Tsirang | 6 | 3 | 577 |
| Wangdue | 0.2 | 0.2 | 700 |
| Zhemgang | 0.5 | 0.4 | 920 |
| **BHUTAN** | **23** | **9** | **406** |

**Table 16.3: Mustard Harvested Area (acres), Production (MT) and Yield (kg/acre)**

| Dzongkhag | Harvested Area(Acres) | Production(MT) | Yield(Kg/acre) |
|---|---|---|---|
| **Bumthang** | 21 | 7 | 317 |
| **Chhukha** | 512 | 170 | 331 |
| **Dagana** | 214 | 65 | 304 |
| **Gasa** | 6 | 3 | 465 |
| **Ha** | 72 | 20 | 276 |
| **Lhuentse** | 38 | 20 | 530 |
| **Monggar** | 124 | 45 | 363 |
| **Paro** | 176 | 53 | 300 |
| **Pemagatshel** | 90 | 24 | 269 |
| **Punakha** | 197 | 57 | 288 |
| **Samdrup Jongkhar** | 226 | 87 | 385 |
| **Samtse** | 155 | 49 | 316 |
| **Sarpang** | 284 | 96 | 339 |
| **Thimphu** | 7 | 3 | 449 |
| **Trashigang** | 225 | 53 | 233 |
| **Trashiyangtse** | 45 | 6 | 141 |
| **Trongsa** | 50 | 12 | 235 |
| **Tsirang** | 82 | 23 | 283 |
| **Wangdue** | 211 | 60 | 285 |
| **Zhemgang** | 47 | 15 | 314 |
| **BHUTAN** | **2,783** | **867** | **312** |

**Table 16.4: Soya bean Harvested Area (acres), Production (MT) and Yield (kg/acre)**

| Dzongkhag | Harvested Area(Acres) | Produced(MT) | Yield(kg/acre) |
|---|---|---|---|
| **Chhukha** | 14 | 7 | 481 |
| **Dagana** | 11 | 3 | 263 |
| **Ha** | 4 | 2 | 381 |
| **Lhuentse** | 10 | 5 | 472 |
| **Monggar** | 127 | 54 | 423 |
| **Pemagatshel** | 166 | 59 | 356 |
| **Punakha** | 9 | 4 | 450 |
| **Samdrup Jongkhar** | 51 | 22 | 427 |
| **Samtse** | 49 | 19 | 382 |
| **Sarpang** | 6 | 1 | 227 |
| **Trashigang** | 121 | 72 | 589 |
| **Trashiyangtse** | 88 | 32 | 370 |
| **Trongsa** | 3 | 1 | 161 |
| **Tsirang** | 38 | 13 | 355 |
| **Wangdue** | 1 | 1 | 722 |
| **Zhemgang** | 11 | 7 | 639 |
| **BHUTAN** | **710** | **301** | **424** |

**Table 16.5: Pyrilla (Naam) Harvested Area (acres), Production (MT) and Yield (kg/acre)**

| Dzongkhag | Harvested Area(Acres) | Production(MT) | Yield(Kg/acre) |
|---|---|---|---|
| **Dagana** | 1 | 0.27 | 267 |
| **Ha** | 12 | 2 | 199 |
| **Lhuentse** | 4 | 2 | 433 |
| **Monggar** | 8 | 2 | 253 |
| **Pemagatshel** | 94 | 4 | 43 |
| **Punakha** | 5 | 0.50 | 92 |
| **Samdrup Jongkhar** | 24 | 13 | 515 |
| **Samtse** | 0.16 | 0.0 | 120 |
| **Sarpang** | 3 | 0.3 | 109 |
| **Trashigang** | 23 | 1 | 42 |
| **Trashiyangtse** | 3 | 0.8 | 330 |
| **Trongsa** | 10 | 0.7 | 63 |
| **Tsirang** | 3 | 0.5 | 144 |
| **Wangdue** | 3 | 0.9 | 329 |
| **Zhemgang** | 18 | 2 | 106 |
| **BHUTAN** | **212** | **30** | **140** |

## 17. Legumes and Pulses

### Table 17.1: Rajma Bean Harvested Area (acres), Production (MT) and Yield(kg/acre)

| Dzongkhag | Harvested Area(Acres) | Production(MT) | Yield(Kg/acre) |
|---|---|---|---|
| Chhukha | 42 | 14 | 323 |
| Dagana | 399 | 156 | 392 |
| Lhuentse | 11 | 2 | 169 |
| Monggar | 677 | 594 | 878 |
| Paro | 3 | 4 | 1,303 |
| Pemagatshel | 120 | 13 | 106 |
| Punakha | 1 | 0.46 | 449 |
| Samdrup Jongkhar | 90 | 41 | 450 |
| Samtse | 16 | 10 | 638 |
| Sarpang | 13 | 6 | 466 |
| Trashigang | 228 | 123 | 537 |
| Trashiyangtse | 1 | 0.37 | 467 |
| Tsirang | 66 | 27 | 404 |
| Zhemgang | 1 | 1 | 806 |
| **BHUTAN** | **1,668** | **991** | **594** |

### Table 17.2: Mung Bean Harvested Area (acres), Production (MT) and Yield(kg/acre)

| Dzongkhag | Harvested Area(Acres) | Production(MT) | Yield(Kg/acre) |
|---|---|---|---|
| Chhukha | 51 | 15 | 296 |
| Dagana | 231 | 150 | 651 |
| Lhuentse | 7 | 0.20 | 29 |
| Monggar | 138 | 87 | 628 |
| Pemagatshel | 5 | 2 | 338 |
| Samdrup Jongkhar | 252 | 140 | 554 |
| Samtse | 124 | 37 | 300 |
| Sarpang | 188 | 64 | 339 |
| Trashigang | 24 | 21 | 864 |
| Trashiyangtse | 35 | 6 | 173 |
| Trongsa | 0.05 | 0.03 | 750 |
| Tsirang | 116 | 56 | 477 |
| Zhemgang | 1 | 0.5 | 754 |
| **BHUTAN** | **1,171** | **577** | **492** |

**Table 17.3: Lentil Harvested Area (acres), Production (MT) and Yield(kg/acre)**

| Dzongkhag | Harvested Area(Acres) | Production (MT) | Yield(Kg/acre) |
|---|---|---|---|
| Chhukha | 21 | 7 | 323 |
| Dagana | 14 | 3 | 189 |
| Monggar | 1 | 0.18 | 276 |
| Pemagatshel | 6 | 1 | 198 |
| Punakha | 0.02 | 0.002 | 100 |
| Samdrup Jongkhar | 38 | 16 | 406 |
| Samtse | 108 | 21 | 193 |
| Sarpang | 45 | 9 | 205 |
| Trashigang | 3 | 1 | 205 |
| Trashiyangtse | 0.70 | 0.3 | 406 |
| Tsirang | 32 | 16 | 511 |
| Zhemgang | 0.27 | 0.05 | 200 |
| **BHUTAN** | **269** | **74** | **274** |

## 18. Roots and Tubers

**Table 18.1: Sweet Potato Harvested Area (acres), Production (MT) and Yield (kg/acre)**

| Dzongkhag | Harvested area(Acres) | Production(MT) | Yield(Kg/acre) |
|---|---|---|---|
| Chhukha | 5 | 7 | 1,286 |
| Dagana | 9 | 6 | 661 |
| Ha | 7 | 3 | 420 |
| Lhuentse | 0.2 | 0.03 | 150 |
| Monggar | 15 | 5 | 344 |
| Pemagatshel | 15 | 8 | 518 |
| Punakha | 13 | 3 | 214 |
| Samdrup Jongkhar | 12 | 12 | 1,006 |
| Samtse | 11 | 9 | 838 |
| Sarpang | 3 | 2 | 770 |
| Trashigang | 12 | 8 | 642 |
| Trashiyangtse | 6 | 3 | 514 |
| Trongsa | 0.5 | 0.1 | 195 |
| Tsirang | 19 | 10 | 511 |
| Wangdue | 2 | 1 | 581 |
| Zhemgang | 3 | 3 | 1,090 |
| **BHUTAN** | **134** | **80** | **598** |

**Table 18.2: Tapioca Harvested Area (acres), Production (MT) and Yield (kg/acre)**

| Dzongkhag | Harvested Area(Acres) | Production(MT) | Yield(kg/acre) |
|---|---|---|---|
| Chhukha | 218 | 65 | 299 |
| Dagana | 27 | 53 | 1,965 |
| Ha | 4 | 1 | 415 |
| Monggar | 9 | 8 | 915 |
| Pemagatshel | 32 | 28 | 871 |
| Punakha | 1 | 0.8 | 1,381 |
| Samdrup Jongkhar | 173 | 64 | 371 |
| Samtse | 125 | 228 | 1,816 |
| Sarpang | 28 | 80 | 2,895 |
| Trashigang | 3 | 0.9 | 364 |
| Trashiyangtse | 0.5 | 2 | 3,875 |
| Trongsa | 0.8 | 0.2 | 200 |
| Tsirang | 46 | 23 | 503 |
| Wangdue | 0.7 | 0.6 | 916 |
| Zhemgang | 11 | 13 | 1,219 |
| **BHUTAN** | **677** | **568** | **838** |

**Table 18.3: Collocacia Harvested Area (acres), Production (MT) and Yield (kg/acre)**

| Dzongkhag | Harvested Area(Acres) | Production(MT) | Yield(Kg/acre) |
|---|---|---|---|
| Chhukha | 5 | 10 | 1,880 |
| Dagana | 4 | 3 | 730 |
| Monggar | 20 | 30 | 1,503 |
| Pemagatshel | 13 | 9 | 711 |
| Punakha | 0.09 | 0.26 | 3,000 |
| Samdrup Jongkhar | 16 | 12 | 791 |
| Samtse | 40 | 44 | 1,106 |
| Sarpang | 10 | 6 | 598 |
| Trashigang | 0.05 | 0.05 | 1,000 |
| Trashiyangtse | 4 | 5 | 1,381 |
| Tsirang | 37 | 18 | 475 |
| Wangdue | 0.03 | 0.08 | 2,695 |
| Zhemgang | 9 | 11 | 1,205 |
| **BHUTAN** | **158** | **148** | **941** |

**Table 18.4: Yam Harvested Area (acres), Production (MT) and Yield (kg/acre)**

| Dzongkhag | Harvested Area(Acres) | Production(MT) | Yield(kg/acre) |
|---|---|---|---|
| Chhukha | 0.98 | 0.7 | 714 |
| Dagana | 1 | 1 | 1,193 |
| Monggar | 9 | 29 | 3,113 |
| Pemagatshel | 3 | 10 | 3,148 |
| Samdrup Jongkhar | 18 | 27 | 1,514 |
| Samtse | 10 | 10 | 1,015 |
| Sarpang | 3 | 3 | 1,108 |
| Trashigang | 0.10 | 0.24 | 2,472 |
| Trashiyangtse | 0.17 | 0.17 | 1,000 |
| Tsirang | 26 | 10 | 367 |
| Zhemgang | 2 | 2 | 1,017 |
| **BHUTAN** | **74** | **93** | **1,267** |

## Horticulture Fruit Crop Production in 2014

## 19. Major Fruit Crops

**Table 19.1: Apple Production and Yield in 2014**

| Dzongkhag | Total Tree | Bearing Tree | Production(MT) | Yield (kg/bearing tree) |
|---|---|---|---|---|
| Bumthang | 7,970 | 7,496 | 162 | 22 |
| Chhukha | 5,106 | 4,255 | 119 | 28 |
| Dagana | 475 | 113 | 1 | 6 |
| Gasa | 64 | 40 | 1 | 23 |
| Ha | 20,948 | 16,334 | 436 | 27 |
| Lhuentse | 1,962 | 884 | 27 | 31 |
| Monggar | 4,187 | 924 | 18 | 20 |
| Paro | 156,730 | 128,801 | 4,637 | 36 |
| Pemagatshel | 538 | 262 | 3 | 12 |
| Punakha | 431 | 155 | 3 | 22 |
| Samdrup Jongkhar | 262 | 33 | 1 | 19 |
| Thimphu | 64,114 | 55,023 | 1,554 | 28 |
| Trashigang | 2,997 | 1,241 | 45 | 36 |
| Trashiyangtse | 9,570 | 607 | 13 | 21 |
| Trongsa | 276 | 159 | 1 | 7 |
| Tsirang | 183 | 15 | 0 | 8 |
| Wangdue | 1,375 | 974 | 28 | 29 |
| Zhemgang | 483 | | - | |
| **BHUTAN** | **277,670** | **217,317** | **7,051** | **32** |

**Table 19.2: Mandarin Production and Yield in 2014**

| Dzongkhag | Total Tree | Bearing Tree | Production(MT) | Yield (kg/bearing tree) |
|---|---|---|---|---|
| Chhukha | 182,367 | 134,927 | 3,348 | 25 |
| Dagana | 278,094 | 165,982 | 6,639 | 40 |
| Ha | 826 | 795 | 13 | 17 |
| Lhuentse | 26,442 | 5,794 | 295 | 51 |
| Monggar | 191,370 | 39,797 | 2,279 | 57 |
| Pemagatshel | 245,568 | 118,220 | 4,292 | 36 |
| Punakha | 22,379 | 14,570 | 367 | 25 |
| Samdrup Jongkhar | 296,967 | 107,395 | 5,538 | 52 |
| Samtse | 91,317 | 63,330 | 1,837 | 29 |
| Sarpang | 228,437 | 189,252 | 10,409 | 55 |
| Trashigang | 83,761 | 14,656 | 615 | 42 |
| Trashiyangtse | 31,638 | 8,874 | 286 | 32 |
| Trongsa | 14,918 | 6,283 | 205 | 33 |
| Tsirang | 166,216 | 113,573 | 6,658 | 59 |
| Wangdue | 10,209 | 5,168 | 161 | 31 |
| Zhemgang | 190,514 | 71,392 | 2,285 | 32 |
| **BHUTAN** | **2,061,023** | **1,060,009** | **45,226** | **43** |

**Table 19.3: Areca nut Production and Yield in 2014**

| Dzongkhag | Total Tree | Bearing Tree | Production(MT) | Yield (kg/bearing tree) |
|---|---|---|---|---|
| Chhukha | 58,455 | 32,308 | 388 | 12 |
| Dagana | 150,961 | 76,794 | 732 | 10 |
| Monggar | 3,115 | 1,174 | 10 | 9 |
| Pemagatshel | 4,735 | 691 | 8 | 11 |
| Samdrup Jongkhar | 87,953 | 53,562 | 763 | 14 |
| Samtse | 428,578 | 200,601 | 2,606 | 13 |
| Sarpang | 548,534 | 259,915 | 2,947 | 11 |
| Tsirang | 600 | 160 | 0.8 | 5 |
| Zhemgang | 2,978 | 1,003 | 13 | 13 |
| **BHUTAN** | **1,285,908** | **626,207** | **7,468** | **12** |

## 20. Other Fruit Crops

### Table 20.1: Mango Production and Yield in 2014

| Dzongkhag | Total Tree | Bearing Tree | Production(MT) | Yield (kg/bearing tree) |
|---|---|---|---|---|
| **Chhukha** | 1,473 | 281 | 9 | 31 |
| **Dagana** | 10,123 | 3,451 | 79 | 23 |
| **Ha** | 3 | 3 | 0.05 | 15 |
| **Lhuentse** | 327 | 135 | 7 | 49 |
| **Monggar** | 7,211 | 3,399 | 156 | 46 |
| **Paro** | 18 | | | |
| **Pemagatshel** | 8,509 | 1,003 | 37 | 37 |
| **Punakha** | 2,294 | 1,330 | 39 | 29 |
| **Samdrup Jongkhar** | 7,163 | 1,693 | 60 | 35 |
| **Samtse** | 2,013 | 701 | 29 | 42 |
| **Sarpang** | 4,542 | 1,515 | 52 | 35 |
| **Trashigang** | 4,281 | 1,627 | 49 | 30 |
| **Trashiyangtse** | 1,936 | 294 | 5 | 15 |
| **Trongsa** | 513 | 237 | 8 | 33 |
| **Tsirang** | 2,968 | 797 | 36 | 46 |
| **Wangdue** | 398 | 261 | 6 | 25 |
| **Zhemgang** | 3,830 | 731 | 14 | 19 |
| **BHUTAN** | **57,601** | **17,458** | **586** | **34** |

**Table 20.2: Pear Production and Yield in 2014**

| Dzongkhag | Total Tree | Bearing Tree | Production(MT) | Yield (kg/bearing tree) |
|---|---|---|---|---|
| **Bumthang** | 249 | 210 | 8 | 38 |
| **Chhukha** | 883 | 624 | 32 | 51 |
| **Dagana** | 1,919 | 1,372 | 91 | 66 |
| **Gasa** | 290 | 93 | 2 | 21 |
| **Ha** | 45 | 20 | 0.5 | 24 |
| **Lhuentse** | 2,643 | 1,084 | 43 | 40 |
| **Monggar** | 7,786 | 2,465 | 79 | 32 |
| **Paro** | 1,393 | 837 | 27 | 32 |
| **Pemagatshel** | 636 | 240 | 9 | 38 |
| **Punakha** | 3,640 | 2,333 | 164 | 70 |
| **Samdrup Jongkhar** | 4,153 | 1,848 | 70 | 38 |
| **Samtse** | 848 | 647 | 33 | 50 |
| **Sarpang** | 1,239 | 840 | 83 | 99 |
| **Thimphu** | 340 | 267 | 13 | 47 |
| **Trashigang** | 9,111 | 2,997 | 177 | 59 |
| **Trashiyangtse** | 3,842 | 701 | 7 | 10 |
| **Trongsa** | 764 | 520 | 10 | 20 |
| **Tsirang** | 2,139 | 1,643 | 219 | 133 |
| **Wangdue** | 2,565 | 1,712 | 67 | 39 |
| **Zhemgang** | 255 | 135 | 3 | 19 |
| **BHUTAN** | **44,739** | **20,586** | **1,137** | **55** |

**Table 20.3: Peach Production and Yield in 2014**

| Dzongkhag | Total Tree | Bearing Trees | Production(MT) | Yield (kg/bearing tree) |
|---|---|---|---|---|
| **Bumthang** | 294 | 248 | 6 | 26 |
| **Chhukha** | 1,209 | 431 | 17 | 41 |
| **Dagana** | 4,864 | 3,280 | 141 | 43 |
| **Gasa** | 39 | 25 | 1 | 21 |
| **Ha** | 251 | 155 | 4 | 25 |
| **Lhuentse** | 2,573 | 1,677 | 64 | 38 |
| **Monggar** | 5,672 | 3,433 | 136 | 40 |
| **Paro** | 2,830 | 2,481 | 98 | 40 |
| **Pemagatshel** | 4,107 | 2,111 | 118 | 56 |
| **Punakha** | 2,776 | 1,827 | 153 | 84 |
| **Samdrup Jongkhar** | 3,808 | 2,625 | 117 | 45 |
| **Samtse** | 1,284 | 1,142 | 38 | 34 |
| **Sarpang** | 2,991 | 2,262 | 42 | 19 |
| **Thimphu** | 532 | 468 | 16 | 33 |
| **Trashigang** | 5,265 | 3,260 | 205 | 63 |
| **Trashiyangtse** | 3,462 | 2,612 | 75 | 29 |
| **Trongsa** | 692 | 456 | 11 | 24 |
| **Tsirang** | 4,576 | 2,931 | 129 | 44 |
| **Wangdue** | 2,419 | 1,805 | 46 | 25 |
| **Zhemgang** | 1,578 | 692 | 18 | 25 |
| **BHUTAN** | **51,222** | **33,921** | **1,435** | **42** |

**Table 20.4: Plum Production and Yield in 2014**

| Dzongkhag | Total Tree | Bearing Tree | Production(MT) | Yield (kg/bearing tree) |
|---|---|---|---|---|
| **Bumthang** | 242 | 211 | 7 | 35 |
| **Chhukha** | 3,393 | 3,349 | 134 | 40 |
| **Dagana** | 3,937 | 1,666 | 89 | 54 |
| **Gasa** | 5 | 5 | 0.18 | 37 |
| **Ha** | 50 | 27 | 0.49 | 18 |
| **Lhuentse** | 1,219 | 903 | 41 | 45 |
| **Monggar** | 2,897 | 1,738 | 81 | 46 |
| **Paro** | 534 | 447 | 13 | 29 |
| **Pemagatshel** | 1,991 | 1,005 | 49 | 48 |
| **Punakha** | 1,390 | 981 | 43 | 44 |
| **Samdrup Jongkhar** | 2,173 | 1,261 | 61 | 48 |
| **Samtse** | 1,580 | 1,230 | 35 | 28 |
| **Sarpang** | 862 | 673 | 30 | 44 |
| **Thimphu** | 354 | 269 | 13 | 47 |
| **Trashigang** | 2,858 | 1,489 | 74 | 50 |
| **Trashiyangtse** | 1,326 | 702 | 27 | 39 |
| **Trongsa** | 171 | 151 | 4 | 26 |
| **Tsirang** | 1,264 | 1,113 | 59 | 53 |
| **Wangdue** | 437 | 331 | 11 | 33 |
| **Zhemgang** | 1,395 | 479 | 13 | 27 |
| **BHUTAN** | **28,079** | **18,029** | **783** | **43** |

**Table 20.5: Walnut Production and Yield in 2014**

| Dzongkhag | Total Tree | Bearing Tree | Production (MT) | Yield (kg/bearing tree) |
|---|---|---|---|---|
| **Bumthang** | 621 | 393 | 5 | 13 |
| **Chhukha** | 525 | 108 | 0.8 | 7 |
| **Dagana** | 2,309 | 457 | 23 | 50 |
| **Gasa** | 2 | | - | |
| **Ha** | 433 | 169 | 2 | 15 |
| **Lhuentse** | 1,001 | 330 | 14 | 42 |
| **Monggar** | 5,979 | 921 | 24 | 26 |
| **Paro** | 2,957 | 1,210 | 29 | 24 |
| **Pemagatshel** | 2,097 | 425 | 16 | 37 |
| **Punakha** | 3,986 | 1,475 | 45 | 30 |
| **Samdrup Jongkhar** | 3,054 | 481 | 13 | 28 |
| **Samtse** | 74 | 3 | 0.03 | 10 |
| **Sarpang** | 403 | 30 | 0.3 | 11 |
| **Thimphu** | 759 | 545 | 9 | 17 |
| **Trashigang** | 6,833 | 1,997 | 119 | 60 |
| **Trashiyangtse** | 3,052 | 813 | 15 | 19 |
| **Trongsa** | 548 | 107 | 3 | 27 |
| **Tsirang** | 818 | 54 | 0.6 | 12 |
| **Wangdue** | 2,076 | 689 | 10 | 15 |
| **Zhemgang** | 1,451 | 180 | 6 | 35 |
| **BHUTAN** | **38,980** | **10,386** | **337** | **32** |

**Table 20.6: Jack Fruit Production and Yield in 2014**

| Dzongkhag | Total Tree | Bearing Tree | Production(MT) | Yield (Kg/bearing tree) |
|---|---|---|---|---|
| Chhukha | 122 | 69 | 8 | 122 |
| Dagana | 695 | 180 | 27 | 150 |
| Monggar | 190 | 123 | 16 | 129 |
| Pemagatshel | 896 | 319 | 38 | 120 |
| Punakha | 52 | 37 | 3 | 79 |
| Samdrup Jongkhar | 5,369 | 3,061 | 538 | 176 |
| Samtse | 3,912 | 2,320 | 362 | 156 |
| Sarpang | 807 | 480 | 78 | 163 |
| Trashigang | 26 | 17 | 0.8 | 50 |
| Trashiyangtse | 27 | 9 | 0.7 | 82 |
| Trongsa | 11 | 11 | 1 | 110 |
| Tsirang | 226 | 85 | 10 | 118 |
| Wangdue | 10 | 5 | 0.8 | 150 |
| Zhemgang | 377 | 259 | 18 | 70 |
| **BHUTAN** | **12,721** | **6,976** | **1,102** | **158** |

**Table 20.7: Guava Production and Yield in 2014**

| Dzongkhag | Total Tree | Bearing Tree | Production(MT) | Yield (kg/bearing tree) |
|---|---|---|---|---|
| Chhukha | 954 | 606 | 22 | 36 |
| Dagana | 4,356 | 2,525 | 74 | 29 |
| Lhuentse | 578 | 512 | 19 | 38 |
| Monggar | 2,633 | 1,769 | 54 | 31 |
| Pemagatshel | 2,768 | 1,507 | 61 | 41 |
| Punakha | 5,846 | 4,862 | 149 | 31 |
| Samdrup Jongkhar | 3,778 | 2,441 | 79 | 32 |
| Samtse | 2,056 | 1,554 | 49 | 32 |
| Sarpang | 3,008 | 2,077 | 33 | 16 |
| Trashigang | 1,889 | 1,202 | 45 | 38 |
| Trashiyangtse | 1,011 | 826 | 26 | 31 |
| Trongsa | 2,113 | 1,418 | 40 | 28 |
| Tsirang | 3,616 | 2,980 | 97 | 33 |
| Wangdue | 1,640 | 1,192 | 27 | 23 |
| Zhemgang | 826 | 538 | 12 | 22 |
| **BHUTAN** | **37,071** | **26,010** | **787** | **30** |

**Table 20.8: Papaya Production and Yield in 2014**

| Dzongkhag | Total Tree | Bearing Tree | Production | Yield (kg/bearing tree) |
|---|---|---|---|---|
| Chhukha | 23 | 17 | 0.7 | 43 |
| Dagana | 330 | 231 | 6 | 27 |
| Lhuentse | 32 | 32 | 0.7 | 23 |
| Monggar | 359 | 292 | 6 | 20 |
| Pemagatshel | 477 | 357 | 6 | 17 |
| Punakha | 219 | 164 | 3 | 20 |
| Samdrup Jongkhar | 520 | 356 | 11 | 30 |
| Samtse | 369 | 247 | 8 | 33 |
| Sarpang | 1,399 | 1,131 | 40 | 35 |
| Trashigang | 366 | 260 | 9 | 34 |
| Trashiyangtse | 351 | 300 | 8 | 28 |
| Trongsa | 112 | 45 | 1 | 27 |
| Tsirang | 1,158 | 892 | 25 | 27 |
| Wangdue | 65 | 42 | 1 | 22 |
| Zhemgang | 73 | 51 | 1 | 25 |
| **BHUTAN** | **5,853** | **4,419** | **126** | **29** |

**Table 20.9: Pomegranate Production and Yield in 2014**

| Dzongkhag | Total Tree | Bearing Trees | Production(MT) | Yield (kg/bearing tree) |
|---|---|---|---|---|
| Chhukha | 52 | 20 | 0.1 | 4 |
| Dagana | 2,197 | 732 | 12 | 17 |
| Lhuentse | 224 | 158 | 6 | 36 |
| Monggar | 884 | 421 | 8 | 19 |
| Paro | 147 | 85 | 3 | 30 |
| Pemagatshel | 180 | 96 | 2 | 25 |
| Punakha | 1,061 | 639 | 11 | 18 |
| Samdrup Jongkhar | 669 | 305 | 3 | 10 |
| Samtse | 159 | 84 | 2 | 28 |
| Sarpang | 215 | 102 | 1.0 | 9 |
| Trashigang | 896 | 506 | 15 | 29 |
| Trashiyangtse | 525 | 353 | 6 | 18 |
| Trongsa | 796 | 419 | 10 | 24 |
| Tsirang | 1,500 | 824 | 14 | 17 |
| Wangdue | 837 | 598 | 17 | 29 |
| Zhemgang | 30 | 12 | 0.1 | 8 |
| **BHUTAN** | **10,370** | **5,355** | **111** | **21** |

**Table 20.10: Litchi Production and Yield in 2014**

| Dzongkhag | Total Tree | Bearing Tree | Production(MT) | Yield (kg/bearing tree) |
|---|---|---|---|---|
| Chhukha | 666 | 61 | 2 | 34 |
| Dagana | 2,156 | 249 | 8 | 31 |
| Monggar | 298 | 99 | 2 | 18 |
| Pemagatshel | 3,026 | 28 | 0.34 | 12 |
| Punakha | 48 | 25 | 0.23 | 9 |
| Samdrup Jongkhar | 2,015 | 310 | 10 | 33 |
| Samtse | 1,581 | 920 | 35 | 38 |
| Sarpang | 11,862 | 2,862 | 112 | 39 |
| Trashigang | 43 | 9 | 0.2 | 20 |
| Trashiyangtse | 7 | 7 | 0.1 | 10 |
| Trongsa | 14 | 11 | 0.2 | 15 |
| Tsirang | 668 | 189 | 2 | 13 |
| Wangdue | 5 | 3 | 0.1 | 26 |
| Zhemgang | 500 | 11 | 0.2 | 16 |
| **BHUTAN** | **22,889** | **4,785** | **172** | **36** |

**Table 20.11: Persimmon Production and Yield in 2014**

| Dzongkhag | Total Tree | Bearing Tree | Production(MT) | Yield (kg/bearing tree) |
|---|---|---|---|---|
| Bumthang | 4 | 4 | 0.02 | 5 |
| Chhukha | 350 | 90 | 3 | 38 |
| Dagana | 253 | 151 | 11 | 75 |
| Lhuentse | 158 | 46 | 1 | 15 |
| Monggar | 1,172 | 385 | 16 | 43 |
| Paro | 381 | 275 | 8 | 30 |
| Pemagatshel | 82 | 18 | 0.3 | 18 |
| Punakha | 2,407 | 1,658 | 88 | 53 |
| Samdrup Jongkhar | 221 | 30 | 0.4 | 13 |
| Samtse | 81 | 70 | 2 | 23 |
| Sarpang | 276 | 101 | 1 | 11 |
| Thimphu | 71 | 46 | 1 | 29 |
| Trashigang | 910 | 466 | 13 | 29 |
| Trashiyangtse | 385 | 66 | 2.39 | 36 |
| Trongsa | 107 | 92 | 2 | 24 |
| Tsirang | 254 | 62 | 0.9 | 15 |
| Wangdue | 1,656 | 1,389 | 75 | 54 |
| Zhemgang | 39 | 39 | 0.3 | 9 |
| **BHUTAN** | **8,805** | **4,988** | **227** | **46** |

**Table 20.12: Banana Production and Yield in 2014**

| Dzongkhag | Total Tree | Bearing Tree | Production(MT) | Yield (Kg/bearing tree) |
|---|---|---|---|---|
| Chhukha | 12,913 | 3,802 | 50 | 13 |
| Dagana | 26,576 | 14,845 | 236 | 16 |
| Ha | 314 | 245 | 2 | 8 |
| Lhuentse | 1,764 | 743 | 11 | 15 |
| Monggar | 30,121 | 8,289 | 113 | 14 |
| Pemagatshel | 22,637 | 4,647 | 77 | 17 |
| Punakha | 4,633 | 1,170 | 22 | 19 |
| Samdrup Jongkhar | 40,416 | 8,791 | 131 | 15 |
| Samtse | 34,365 | 12,633 | 202 | 16 |
| Sarpang | 36,141 | 16,185 | 204 | 13 |
| Trashigang | 20,366 | 5,954 | 108 | 18 |
| Trashiyangtse | 7,547 | 1,965 | 29 | 15 |
| Trongsa | 3,768 | 1,940 | 39 | 20 |
| Tsirang | 44,112 | 21,356 | 343 | 16 |
| Wangdue | 7,307 | 1,950 | 28 | 14 |
| Zhemgang | 7,381 | 3,200 | 34 | 11 |
| **BHUTAN** | **300,360** | **107,712** | **1,631** | **15** |

**Table 20.13: Other Fruit Crops Production**

| Dzongkhag | Sugarcane Production(MT) | Passion fruits Production(MT) | Pine Apple Production(MT) |
|---|---|---|---|
| Chhukha | 8 | 5 | 3 |
| Dagana | 27 | 12 | 8 |
| Ha | 0.50 | 0.08 | - |
| Lhuentse | 1 | 4 | - |
| Monggar | 12 | 15 | 5 |
| Pemagatshel | 72 | 14 | 3 |
| Punakha | 26 | 18 | 0.36 |
| Samdrup Jongkhar | 41 | 22 | 14 |
| Samtse | 15 | 4 | 5 |
| Sarpang | 11 | 9 | 12 |
| Trashigang | 21 | 10 | 1 |
| Trashiyangtse | 17 | 2 | 0.15 |
| Trongsa | 4 | 2 | 0.15 |
| Tsirang | 57 | 9 | 1 |
| Wangdue | 9 | 7 | - |
| Zhemgang | 2 | 0.96 | 1 |
| **BHUTAN** | **324** | **135** | **54** |