



Report on a survey conducted in October and November 2017 in respect of information supplied by milk producers in terms of the requirements as published in Regulations 42 and 46 of 22 January 2016 in terms of the Marketing of Agricultural Products Act (47 of 1996).

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1. Introduction

In terms of Regulations 42 and 46 of 2016 the Milk Producers' Organisation (MPO) is compelled to collect specific information from milk producers of raw milk. This survey was carried out in October and November 2017. The survey was conducted among all milk producers registered as such with the MPO in terms of Regulation 42 of 2016. It consisted of an initial email survey, followed by two additional email surveys and a telephone survey among persons who initially failed to respond and producers without email contact. Incomplete questionnaires were followed up by telephone in December 2017. In total 688 responses (45,8%) could be used. The total response is compared with the number of registered producers per province in Table 1.

Table 1: Survey response and registered producers per province, November 2017

| Province | Responders | % of total | Producers | % of total | Response % of producers |
|-----------------|-------------------|-------------------|------------------|-------------------|--------------------------------|
| North West | 89 | 12,9% | 146 | 9,7% | 61,0% |
| Free State | 83 | 12,1% | 242 | 16,1% | 34,3% |
| Mpumalanga | 38 | 5,5% | 79 | 5,3% | 48,1% |
| Northern Cape | 6 | 0,9% | 7 | 0,5% | 85,7% |
| Limpopo | 8 | 1,2% | 16 | 1,1% | 50,0% |
| Western Cape | 233 | 33,9% | 451 | 30,0% | 51,7% |
| Gauteng | 30 | 4,4% | 97 | 6,5% | 30,9% |
| KwaZulu-Natal | 75 | 10,9% | 233 | 15,5% | 32,2% |
| Eastern Cape | 126 | 18,3% | 232 | 15,4% | 54,3% |
| Total | 688 | 100,0% | 1 503 | 100,0% | 45,8% |

The response rate of the different regions varied between 30,9% and 85,7%. In the opinion of the Milk Producers' Organisation the information in this report provides a reliable overview of the typical structure of milk production in South Africa. Provincial information in provinces with a low response rate should be handled with care.

2. Herd¹ composition and structure

The average composition of dairy herds per province is shown in Table 2 and the percentage composition in Table 3. The largest herds are in the Eastern Cape and KwaZulu-Natal and the smallest in North West and the Free State.

Table 2: Herd composition (numbers), average dairy herd per province, 2017

| Province | Cows in milk | Dry cows | Heifers >1 year | Heifers < 1 year | Total |
|---|--------------|----------|-----------------|------------------|-------|
| Eastern Cape | 606 | 48 | 182 | 187 | 1023 |
| KwaZulu-Natal | 594 | 57 | 191 | 193 | 1035 |
| Western Cape | 268 | 55 | 103 | 101 | 527 |
| Limpopo | 191 | 31 | 105 | 106 | 433 |
| Free State | 117 | 37 | 53 | 37 | 244 |
| Northern Cape | 398 | 53 | 143 | 52 | 646 |
| Mpumalanga | 139 | 29 | 54 | 48 | 270 |
| Gauteng | 188 | 49 | 73 | 48 | 358 |
| North West | 87 | 22 | 26 | 26 | 161 |
| National herd² | 332 | 46 | 113 | 110 | 601 |

¹ A dairy herd is defined as a number of dairy animals being farmed on a separate farm, irrespective of its ownership.

² The properties of the total herd are determined from the total responses and not as an unweighted average.

Table 3: Herd composition (%), average dairy herd per province, 2017

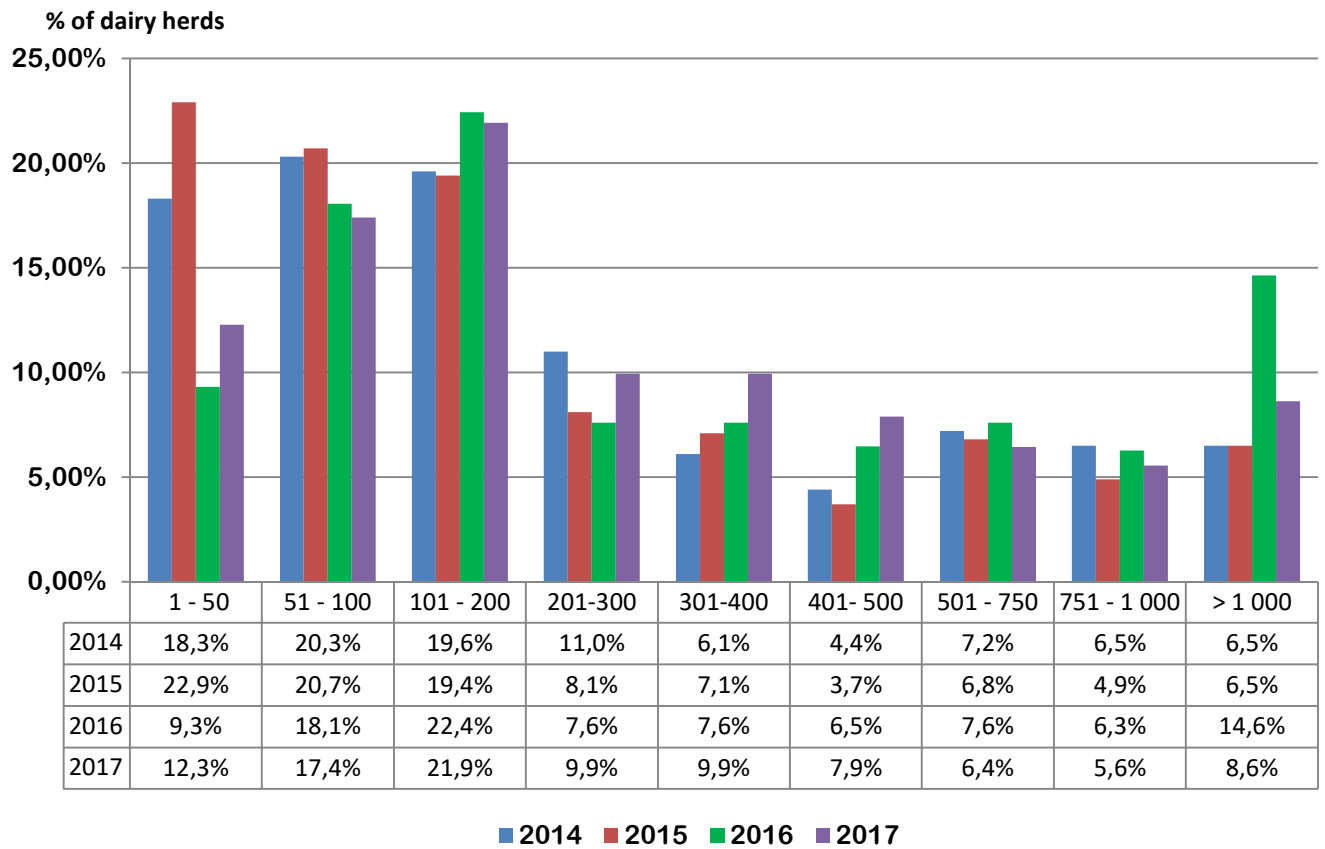
| Province | Cows in milk | Dry cows | Heifers >1 year | Heifers < 1 year |
|-------------------------------|---------------------|-----------------|---------------------------|----------------------------|
| Eastern Cape | 59,2% | 4,7% | 17,8% | 18,3% |
| KwaZulu-Natal | 57,4% | 5,5% | 18,5% | 18,6% |
| Western Cape | 50,9% | 10,4% | 19,5% | 19,2% |
| Limpopo | 44,1% | 7,2% | 24,2% | 24,5% |
| Free State | 48,0% | 15,2% | 21,7% | 15,2% |
| Northern Cape | 61,6% | 8,2% | 22,1% | 8,0% |
| Mpumalanga | 51,5% | 10,7% | 20,0% | 17,8% |
| Gauteng | 52,5% | 13,7% | 20,4% | 13,4% |
| North West | 54,0% | 13,7% | 16,1% | 16,1% |
| National herd | 55,2% | 7,7% | 18,8% | 18,3% |

The distribution of dairy herds per herd size interval is shown in Table 4 and Figure 1. Fifty per cent of the dairy herds comprise 200 or fewer cows in the herd while 21% of the herds have more than 500 cows.

Table 4: Distribution of dairy herds per herd size group (cows in herd), 2015 – 2017

| Cows in herd | % of herds | | | Cumulative % of herds | | |
|--------------|------------|--------|--------|-----------------------|--------|--------|
| | 2015 | 2016 | 2017 | 2015 | 2016 | 2017 |
| 1–50 | 22,9% | 9,3% | 12,3% | 22,9% | 9,3% | 12,3% |
| 51–100 | 20,7% | 18,1% | 17,4% | 43,6% | 27,4% | 29,7% |
| 101–200 | 19,4% | 22,4% | 21,9% | 63,0% | 49,8% | 51,6% |
| 201–300 | 8,1% | 7,6% | 9,9% | 71,1% | 57,4% | 61,5% |
| 301–400 | 7,1% | 7,6% | 9,9% | 78,1% | 65,0% | 71,5% |
| 401–500 | 3,7% | 6,5% | 7,9% | 81,9% | 71,5% | 79,4% |
| 501–750 | 6,8% | 7,6% | 6,4% | 88,6% | 79,1% | 85,8% |
| 751–1 000 | 4,9% | 6,3% | 5,6% | 93,5% | 85,4% | 91,4% |
| > 1 000 | 6,5% | 14,6% | 8,6% | 100,0% | 100,0% | 100,0% |
| Total | 100,0% | 100,0% | 100,0% | | | |

Figure 1: Distribution of herds per herd size group (cows in herd), 2015 – 2017

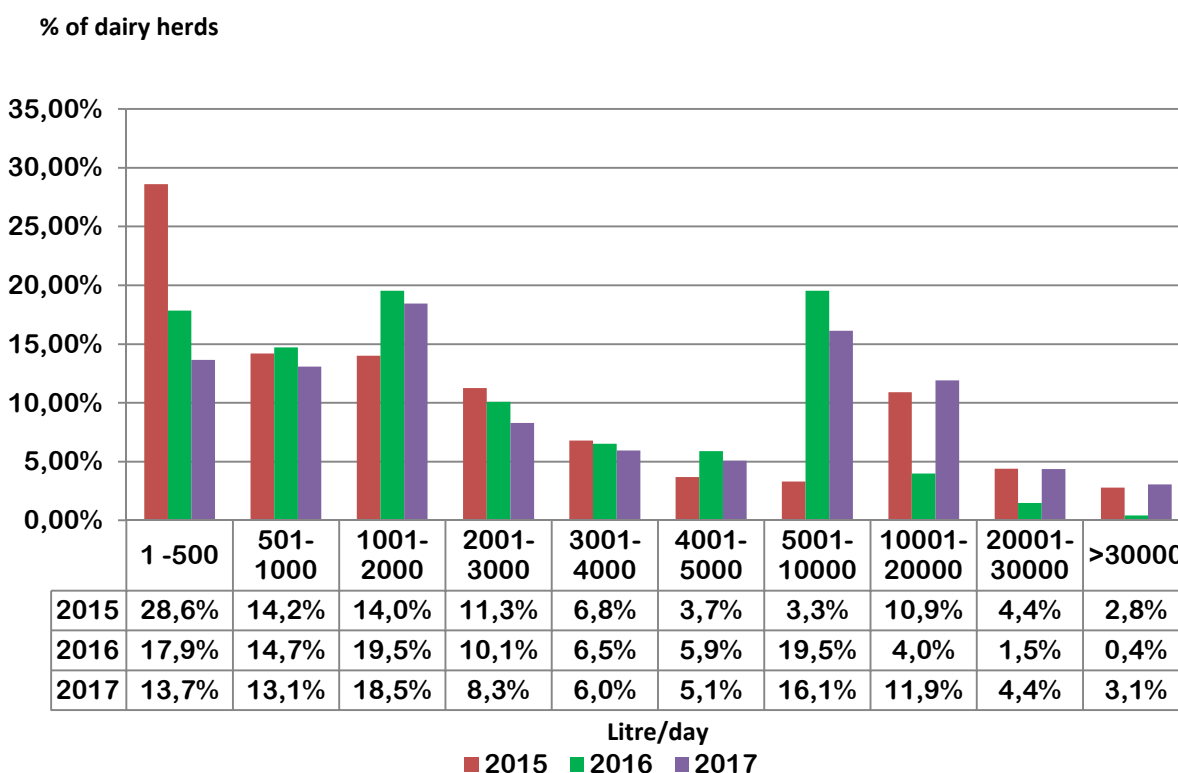


The distribution of herds based on total daily production per herd is shown in Table 5 and Figure 2. Fifty-four per cent of the herds produce 3 000 l and less per day and 41% produce more than 4 000 l per day.

Table 5: Distribution of herds per production group, 2015 – 2017

| Daily production | % of dairy herds | | | Cumulative % | | |
|------------------|------------------|--------|--------|--------------|--------|--------|
| | 2015 | 2016 | 2017 | 2015 | 2016 | 2017 |
| 1– 500 | 28,6% | 17,9% | 13,7% | 28,6% | 17,9% | 13,7% |
| 501–1 000 | 14,2% | 14,7% | 13,1% | 42,8% | 32,6% | 26,7% |
| 1 001–2 000 | 14,0% | 19,5% | 18,5% | 56,8% | 52,1% | 45,2% |
| 2 001–3 000 | 11,3% | 10,1% | 8,3% | 68,1% | 62,2% | 53,5% |
| 3 001–4 000 | 6,8% | 6,5% | 6,0% | 74,9% | 68,7% | 59,4% |
| 4 001–5 000 | 3,7% | 5,9% | 5,1% | 78,6% | 74,6% | 64,5% |
| 5 001–10 000 | 3,3% | 19,5% | 16,1% | 81,9% | 94,1% | 80,7% |
| 10 001–20 000 | 10,9% | 4,0% | 11,9% | 92,8% | 98,1% | 92,6% |
| 20 001–30 000 | 4,4% | 1,5% | 4,4% | 97,2% | 99,6% | 96,9% |
| >30 000 | 2,8% | 0,4% | 3,1% | 100,0% | 100,0% | 100,0% |
| Total | 100,0% | 100,0% | 100,0% | | | |

Figure 2: Distribution of herds per production group, 2015 – 2017



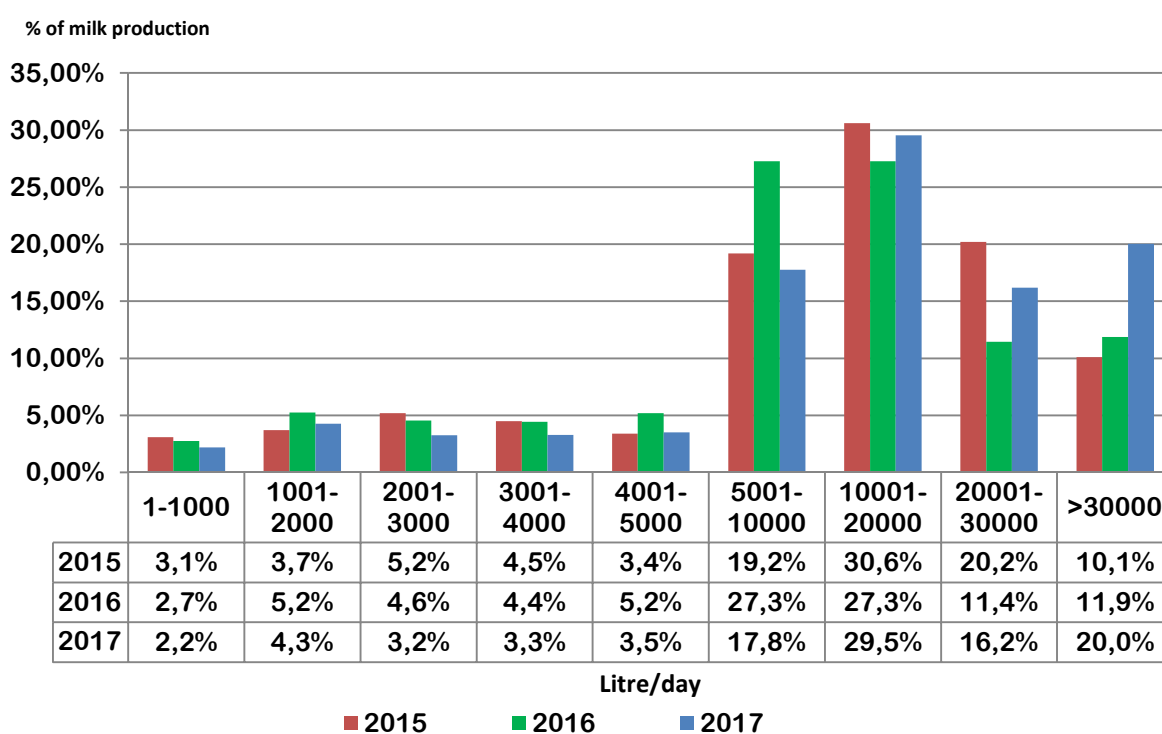
2. Milk production

The share of total milk production per production class is shown in Table 6 and Figure 3. Large herds (producing more than 10 000 l./day) produce 80% of the total volume of milk in South Africa.

Table 6: Milk production per production class, 2015 – 2017

| Daily production | % of total milk production | | | Cumulative % | | |
|------------------|----------------------------|--------|--------|--------------|--------|--------|
| | 2015 | 2016 | 2017 | 2015 | 2016 | 2017 |
| 1–1 000 | 3,1% | 2,7% | 2,2% | 3,1% | 2,7% | 2,2% |
| 1 001–2 000 | 3,7% | 5,2% | 4,3% | 6,8% | 8,0% | 6,4% |
| 2 001–3 000 | 5,2% | 4,6% | 3,2% | 12,0% | 12,5% | 9,7% |
| 3 001–4 000 | 4,5% | 4,4% | 3,3% | 16,5% | 17,0% | 13,0% |
| 4 001–5 000 | 3,4% | 5,2% | 3,5% | 19,9% | 22,1% | 16,5% |
| 5 001–10 000 | 19,2% | 27,3% | 17,8% | 39,1% | 49,4% | 34,2% |
| 10 001–20 000 | 30,6% | 27,3% | 29,5% | 69,7% | 76,7% | 63,8% |
| 20 001–30 000 | 20,2% | 11,4% | 16,2% | 89,9% | 88,1% | 80,0% |
| >30 000 | 10,1% | 11,9% | 20,0% | 100,0% | 100,0% | 100,0% |
| Total | 100,0% | 100,0% | 100,0% | | | |

Figure 3: Milk production per production class, 2015 – 2017



The daily average production and utilisation of milk per dairy farm per province are shown in Table 7. The Eastern Cape has the highest production per day, followed by the Northern Cape and KwaZulu-Natal.

Table 7: Daily milk production and utilisation per dairy farm per province

| Province | Daily production | Delivered to market | On-farm use | % Delivered |
|---------------|------------------|---------------------|-------------|-------------|
| Eastern Cape | 12 016 | 11 841 | 175 | 98,5% |
| KwaZulu-Natal | 11 585 | 11 366 | 219 | 98,1% |
| Western Cape | 5 459 | 5 385 | 74 | 98,6% |
| Limpopo | 5 336 | 5 270 | 66 | 98,8% |
| Free State | 2 333 | 2 285 | 48 | 97,9% |
| Northern Cape | 11 666 | 11 637 | 29 | 99,8% |
| Mpumalanga | 3 175 | 3 123 | 52 | 98,4% |
| Gauteng | 3 689 | 3 648 | 41 | 98,9% |
| North West | 1 692 | 1 652 | 40 | 97,6% |
| National herd | 6 652 | 6 549 | 103 | 98,5% |

Average daily milk production per cow in milk per day is shown in Table 8.

Table 8: Average daily milk production per cow in milk per province, 2017

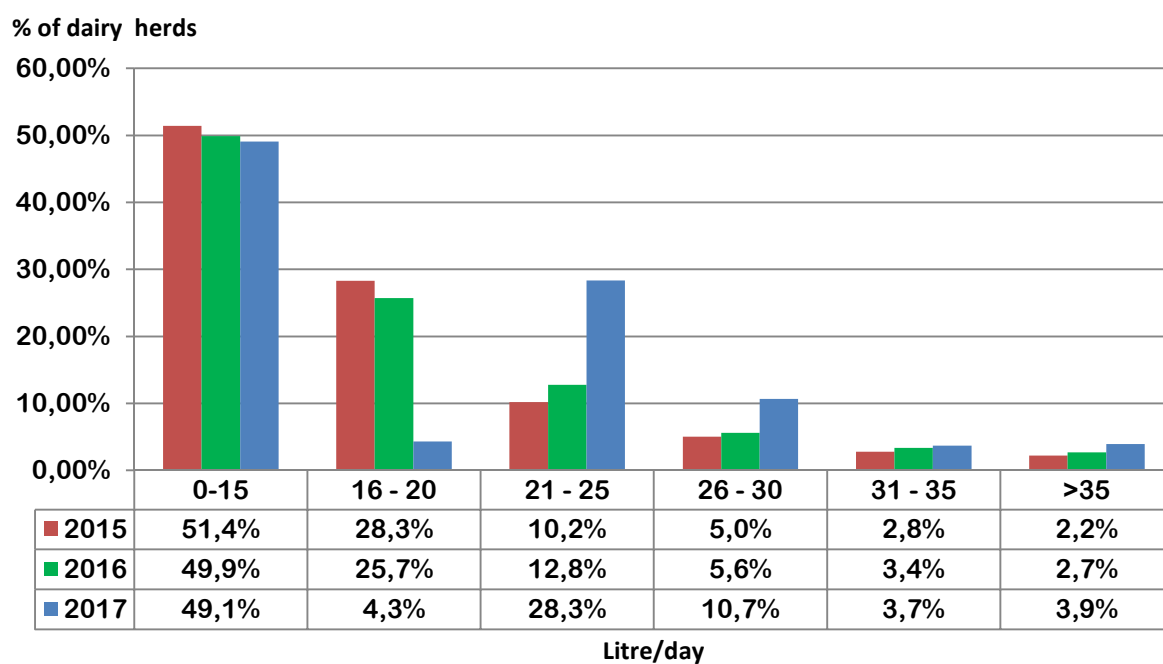
| Province | Average Production ℓ/cow/day |
|---------------|---------------------------------|
| Eastern Cape | 19,8 |
| KwaZulu-Natal | 19,5 |
| Western Cape | 20,3 |
| Limpopo | 27,9 |
| Free State | 19,7 |
| Northern Cape | 29,3 |
| Mpumalanga | 22,8 |
| Gauteng | 19,6 |
| North West | 19,4 |
| National herd | 20,0 |

The distribution of herds, based on average milk production per cow per day, is shown in Table 9 and Figure 4. Ninety per cent of the herds have an average daily production per cow in milk of less than 26 ℓ.

Table 9: Herd distribution based on average production per cow in milk per day

| Production/day (L) | % of herds 2015 | % of herds 2016 | % of herds 2017 |
|--------------------|--------------------|--------------------|--------------------|
| 0–15 | 51,4% | 49,9% | 49,1% |
| 16–20 | 28,3% | 25,7% | 4,3% |
| 21–25 | 10,2% | 12,8% | 28,3% |
| 26–30 | 5,0% | 5,6% | 10,7% |
| 31–35 | 2,8% | 3,4% | 3,7% |
| >35 | 2,2% | 2,7% | 3,9% |

Figure 4: Herd distribution, based on average production per cow in milk per day, 2015–2017



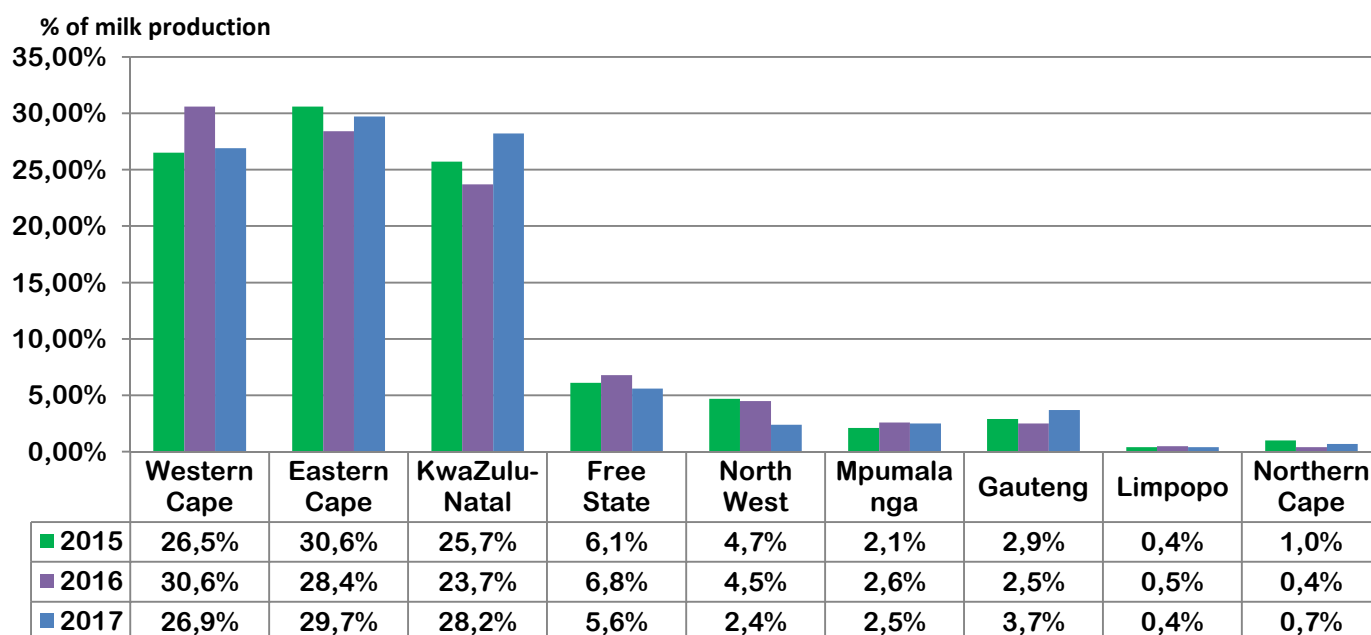
4. Geographical distribution of milk production

The geographical distribution of total milk production based on received questionnaires and on additional information received from milk processors is shown in Table 10 and Figure 5. More than 84% of total milk is produced in the three coastal provinces (2009 = 74%).

Table 10: Geographical distribution of milk production per province, 2015 – 2017

| Province | 2015 | 2016 | 2017 |
|---------------|---------------|---------------|---------------|
| Western Cape | 26,5% | 30,6% | 26,9% |
| Eastern Cape | 30,6% | 28,4% | 29,7% |
| KwaZulu-Natal | 25,7% | 23,7% | 28,2% |
| Free State | 6,1% | 6,8% | 5,6% |
| North West | 4,7% | 4,5% | 2,4% |
| Mpumalanga | 2,1% | 2,6% | 2,5% |
| Gauteng | 2,9% | 2,5% | 3,7% |
| Limpopo | 0,4% | 0,5% | 0,4% |
| Northern Cape | 1,0% | 0,4% | 0,7% |
| Total | 100,0% | 100,0% | 100,0% |

Figure 5: Milk production per province, 2015–2017



5. Geographical distribution of dairy cows

The geographical distribution of dairy cows (in milk and dry) per province is shown in Table 11. The cow distribution closely follows the distribution of total milk production. Total milking herd (cows in milk plus dry cows) is estimated at 615 000.

Table 11: Geographical distribution of dairy cows, 2017

| Province | 2017 |
|----------------------|-------------|
| Western Cape | 26,9% |
| Eastern Cape | 29,7% |
| KwaZulu-Natal | 28,2% |
| Free State | 5,6% |
| North West | 2,4% |
| Mpumalanga | 2,5% |
| Gauteng | 3,7% |
| Limpopo | 0,4% |
| Northern Cape | 0,7% |
| Total | 100,0% |