Typology: Agriculture industry

A report on the circumstances causing injuries or diseases which were compensated for 60 days or more.

*Note: Data extracted January 2018*
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1. Executive summary

This document provides a Typology based on Queensland Agriculture industry claims with 60 or more workdays compensated. The Typology classifies the circumstances that resulted in the injury or disease using mechanism of incident, as outlined in the Types of Occurrence Classification System (TOOCS).

Claims with 60 or more workdays compensated account for 68 per cent of all Agriculture claims costs over the period. The average claim rate was 4.2 claims per 1000 workers, which is noticeably higher than the average claim rate of three claims per 1000 workers for all Queensland industries. Workers in the Agriculture industry are nearly 1.5 times as likely to experience a significant injury as workers in all other industries.

Agriculture workers between the ages of 25 to 34 years represent approximately a quarter of all Agriculture claims with 60 or more workdays compensated. Moreover, the average claim rates for the Agriculture industry were significantly higher than the rates for all of Queensland across all age groups. This was particularly evident in the younger age groups.

Over 90 per cent of claims with 60 or more workdays compensated were the result of either falls, body stressing, being hit by moving objects or vehicle incidents.

Fall related injuries represent 29 per cent of all relevant Agriculture claims. Almost two thirds of the fall related injuries were due to a fall from height. Over the period, a total of two Agriculture workers were fatally injured due to a fall.

Body stressing injuries represent approximately a quarter of all relevant Agriculture claims. Body stressing injuries were mainly the result of either carrying or lifting objects.

Injuries resulting from being hit by moving objects represent 21 per cent of all relevant Agriculture claims. Over the period, a total of two Agriculture workers were fatally injured due to being hit by a moving object.

Vehicle incidents represent 19 per cent of Agriculture claims with 60 or more workdays compensated; however, they account for over 50 per cent of all fatality claims for Agriculture workers over the same period.
2. Introduction

This document provides a Typology based on mechanism of incident and relates to the Agriculture, Forestry and Fishing (hereafter, Agriculture) industry only. The Types of Occurrence Classification System (TOOCS), developed by Safe Work Australia, has been used to describe the relevant mechanism. The mechanism is the action, exposure or event that best describes the circumstances that resulted in the injury/disease.

2.1 What is a Typology?

A Typology is a scientific method of classification that helps explain what has happened previously. In this case, the classification is based on TOOCS mechanism of incident and the Typology is comprised of two levels. The higher level (or type) contains the largest and most general groups of mechanisms of incidents. The second type or sub-grouping is a breakdown of these larger mechanisms of incident groups. This Typology is a form of pattern analysis that allows the reader to:
- identify common injury mechanisms and target areas of concern
- assess the effectiveness of targeted initiatives over time.

Note: The Typology is restricted to two levels as it is based on TOOCS mechanism of incident, which is comprised of two levels. That is, an upper level (mechanism group) and a more detailed lower level (mechanism).

2.2 Scope

The Typology was developed using accepted workers’ compensation claims\(^1\) data where:
- the industry division\(^2\) is Agriculture
- 60 or more workdays are compensated
- psychological and commuting claims are excluded
- the claim intimation date is between 1 January 2012 and 31 December 2016 (the period).

2.2.1 Why focus on claims with 60 or more workdays compensated?

Table 1 below shows the number of Agriculture claims and overall costs for each claim category. Although claims with 60 or more workdays compensated make up only 14 per cent of all claims over the period, they account for 68 per cent of total claim costs.

Agriculture claims with 60 or more workdays compensated include permanent and non-permanent impairment damage claims and involve injuries of a significant nature.

\(^1\) Source: Queensland Employee Injury Database (QEIDB)
\(^2\) Based on ABS: ANZSIC 2006 Classifications
Table 1. Agriculture claims by category (2012 to 2016)

<table>
<thead>
<tr>
<th>Category</th>
<th>No. of claims</th>
<th>% of claims</th>
<th>Total claim costs(^{\text{a}})</th>
<th>% of costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 60 workdays compensated</td>
<td>7,592</td>
<td>86%</td>
<td>$27M</td>
<td>27%</td>
</tr>
<tr>
<td>60 or more workdays compensated</td>
<td>1,242</td>
<td>14%</td>
<td>$67M</td>
<td>68%</td>
</tr>
<tr>
<td>Fatality claims</td>
<td>18</td>
<td>&lt;1%</td>
<td>$5M</td>
<td>5%</td>
</tr>
<tr>
<td>Total</td>
<td>8,852</td>
<td>100%</td>
<td>$99M</td>
<td>100%</td>
</tr>
</tbody>
</table>

\(^{\text{a}}\)Total statutory costs over the period - 2012 to 2016

3. Background – Agriculture industry

3.1 Incidence

The claim rate for Agriculture claims with 60 or more workdays compensated has increased over the past five years. Moreover, the Agriculture claim rate sits above the claim rate for all Queensland industries. The average claim rate for Agriculture over the period was 4.2 claims per 1000 workers, which is noticeably higher than the average claim rate of 3 claims per 1000 workers for all industries. Refer to chart 1 below.

Chart 1. Claim rates (2012 to 2016)

3.2 Likelihood of \(\geq\)60 workdays compensated claims

On average, one in every 239 Queensland Agriculture workers each year will experience a significant injury (an injury which results in a claim requiring 60 or more workdays compensated). Notably, Agriculture workers are nearly 1.5 times as likely to experience a significant injury when compared to workers from all other industries. Refer to tables 2 and 3 below.
Table 2. Likelihood - Agriculture claims with 60 or more workdays compensated

<table>
<thead>
<tr>
<th>Calendar year</th>
<th>No. of claims</th>
<th>Labour force</th>
<th>Likelihood (1 in X workers)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>274</td>
<td>70,800</td>
<td>1 in 258</td>
</tr>
<tr>
<td>2013</td>
<td>250</td>
<td>61,500</td>
<td>1 in 246</td>
</tr>
<tr>
<td>2014</td>
<td>246</td>
<td>52,000</td>
<td>1 in 211</td>
</tr>
<tr>
<td>2015</td>
<td>221</td>
<td>57,900</td>
<td>1 in 262</td>
</tr>
<tr>
<td>2016</td>
<td>251</td>
<td>54,900</td>
<td>1 in 219</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td></td>
<td></td>
<td><strong>1 in 239</strong></td>
</tr>
</tbody>
</table>

Table 3. Likelihood - all other industry claims (excluding Agriculture) with 60 or more workdays compensated

<table>
<thead>
<tr>
<th>Calendar year</th>
<th>No. Of Claims</th>
<th>Labour Force</th>
<th>Likelihood (1 in X workers)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>7,052</td>
<td>2,212,900</td>
<td>1 in 314</td>
</tr>
<tr>
<td>2013</td>
<td>6,714</td>
<td>2,234,400</td>
<td>1 in 333</td>
</tr>
<tr>
<td>2014</td>
<td>6,971</td>
<td>2,273,700</td>
<td>1 in 326</td>
</tr>
<tr>
<td>2015</td>
<td>6,604</td>
<td>2,294,800</td>
<td>1 in 347</td>
</tr>
<tr>
<td>2016</td>
<td>6,635</td>
<td>2,313,700</td>
<td>1 in 349</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td></td>
<td></td>
<td><strong>1 in 334</strong></td>
</tr>
</tbody>
</table>

3.3 Age distribution

The rates in this section are significantly higher than other rates calculated in this paper due to different source denominators being used for age analysis. As such, rates in this section are not comparable.

Approximately a quarter of all Agriculture claims with 60 or more workdays compensated were for workers between the ages of 25 and 34 years.

Chart 2 shows the claim rates for claims with 60 or more workdays compensated by age group. Notably, the average claim rates for Agriculture are significantly higher than the rates for all Queensland industries across most age groups. Alarmingly, the younger age groups have a significantly higher claim rate compared with the rate for all Queensland industries.

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3 Source: ABS labour force data
Chart 2. Claims rates by age group (2012 to 2016)

Note: the age group rates were calculated using the average number of claims over the period (2012-2016) divided by the 2016 Census labour force numbers multiplied by 1000.
4. Typology by mechanism (group)

Note: orange indicates an area of concern whereas blue indicates an area of interest but of less importance.

Queensland Agriculture permanent and non-permanent damage ≥ 60 days January 2012 to December 2016 Qld Workcover 1,242 claims

- Falls, trips and slips of a person
  - 364 claims
  - 29%
  - Type 1

- Body stressing
  - 282 claims
  - 23%
  - Type 2

- Being hit by moving objects
  - 267 claims
  - 21%
  - Type 3

- Vehicle incidents and other
  - 237 claims
  - 19%
  - Type 4

- Hitting objects with a part of the body
  - 70 claims
  - 6%
  - Type 5

- Heat, radiation and electricity
  - 9 claims
  - 1%
  - Type 6

- Biological factors
  - 6 claims
  - < 1%
  - Type 7

- Chemicals and other substances
  - 6 claims
  - < 1%
  - Type 8

- Sound & pressure
  - 1 claims
  - < 1%
  - Type 9
4.1 Type 1 – falls, trips and slips

Falls, trips and slips represents 29 per cent of all Queensland Agriculture claims ≥ 60 workdays compensated.

Half of all claims for falls, trips and slips were for farm, forestry and garden workers (38%) and mobile plant operators (15%). Nearly half (47%) of those claims were for fractures.
4.2 Type 2 – body stressing

Body stressing represents 23 per cent of all Queensland Agriculture claims ≥ 60 workdays compensated.

Farm, forestry and garden workers made up a third of body stressing claims (34%) and more than half of those claims were associated with the lower back (32%) and shoulder (26%).
### 4.3 Type 3 – being hit by moving objects

*Being hit by moving objects represents 21 per cent of all Queensland Agriculture claims ≥ 60 workdays compensated.*

Farm, forestry and garden workers accounted for more than a third of claims (38%) where workers were hit by moving objects, and nearly a third of those claims were associated with the lower leg (17%) and knee (13%).

<table>
<thead>
<tr>
<th>Category</th>
<th>Claims</th>
<th>Percentage</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Being hit by an animal</td>
<td>89</td>
<td>33%</td>
<td>3.1</td>
</tr>
<tr>
<td>Being trapped between stationary and moving objects</td>
<td>50</td>
<td>19%</td>
<td>3.2</td>
</tr>
<tr>
<td>Being hit by moving objects</td>
<td>48</td>
<td>18%</td>
<td>3.3</td>
</tr>
<tr>
<td>Being hit by falling objects</td>
<td>47</td>
<td>18%</td>
<td>3.4</td>
</tr>
<tr>
<td>Being trapped by moving machinery or equipment</td>
<td>22</td>
<td>8%</td>
<td>3.5</td>
</tr>
<tr>
<td>Being assaulted by a person or persons</td>
<td>9</td>
<td>3%</td>
<td>3.6</td>
</tr>
<tr>
<td>Being hit by a person accidentally</td>
<td>2</td>
<td>1%</td>
<td>3.7</td>
</tr>
</tbody>
</table>
4.4 Type 4 – vehicle incidents

Vehicle incidents and other represents 19 per cent of all Queensland Agriculture claims ≥ 60 workdays compensated.

Nearly a half of vehicle incidents and other claims were for farm, forestry and garden workers (42%). Of those claims, a third were for injuries affecting the knee (19%) and shoulder (15%).
4.5 Type 5 – hitting objects with a part of the body

*Hitting objects with a part of the body represents six (6) per cent of all Queensland Agriculture claims ≥ 60 workdays compensated.*

Nearly two-thirds of claims (64%) for this mechanism were for mobile plant operators (33%) and farm, forestry and garden workers (31%). Of these claims, nearly half (49%) were due to lacerations or open wounds not involving traumatic amputation.

**Hitting objects with a part of the body**
Queensland Agriculture permanent and non-permanent damage ≥ 60 days
January 2012 to December 2016
Qld Workcover 70 claims

100%
Type 5

**Hitting moving objects**
48 claims
69%
Type 5.1

**Hitting stationary objects**
21 claims
30%
Type 5.2

**Rubbing and chafing**
1 claim
1%
Type 5.3
4.6 Type 6 – heat, radiation and electricity

Heat, radiation and electricity represents one (1) per cent of all Queensland Agriculture claims ≥ 60 workdays compensated.

The occupations most affected by this mechanism were farm, forestry and garden workers (5 claims or 56%), mobile plant operators (3 claims or 33%), and farmers and farm managers (1 claim or 11%).

- **Heat, radiation and electricity**
  - Queensland Agriculture permanent and non-permanent damage ≥ 60 days
  - January 2012 to December 2016
  - Workcover 9 claims
  - 100%
  - Type 6

- **Contact with hot objects**
  - 5 claims
  - 56%
  - Type 6.1

- **Contact with electricity**
  - 4 claims
  - 44%
  - Type 6.2
4.7 Type 7 – biological factors

*Biological factors represents less than one (1) per cent of all Queensland Agriculture claims ≥ 60 workdays compensated.*

Mobile plant operators accounted for a third of these claims (33%).
4.8 Type 8 – chemicals and other substances

Chemicals and other substances represents less than one (1) per cent of all Queensland Agriculture claims ≥ 60 workdays compensated.

Mobile plant operators accounted for three (50%) of these claims and three claims (50%) were due to insects.
4.9 Type 9 – sound and pressure

*Sound and pressure represents less than one (1) per cent of all Queensland Agriculture claims ≥ 60 workdays compensated.*

A young truck driver suffered from an ear injury caused by water.

```
Sound and pressure
Queensland Agriculture permanent and non-permanent damage ≥ 60 days
January 2012 to December 2016
Qld Workcover
1 claim 100%
Type 9

Other variations in pressure
1 claim 100%
Type 9.1
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5. Typology – summary of key findings

Over 90 per cent of claims with 60 or more workdays compensated were the result of either falls, body stressing, being hit by moving objects or vehicle incidents.

*Fall related injuries* represent 29 per cent of all relevant Agriculture claims. Almost two thirds of the *fall related injuries* were due to a fall from height. Over the period, a total of two Agriculture workers were fatally injured due to a fall.

*Body stressing* injuries represent approximately a quarter of all relevant Agriculture claims. *Body stressing injuries* were mainly the result of either carrying or lifting objects.

Injuries resulting from *being hit by moving objects* represent 21 per cent of all relevant Agriculture claims. Over the period, a total of two Agriculture workers were fatally injured due to being hit by a moving object.

Vehicle incidents represent 19 per cent of Agriculture claims with 60 or more workdays compensated; however, they account for over 50 per cent of all fatality claims for Agriculture workers over the same period.