Kiwifruit dashboard tools

- A single web-based software platform but three dashboard tools i.e.

    - Orchard

    - Postharvest (packhouse/coolstore)

    - Zespri (for industry-level reporting and based on data provided by the orchard and postharvest tools)

- All following Screenshots are from the Demo site, using only dummy data.

ARGOS

Orchard dashboard

Home page

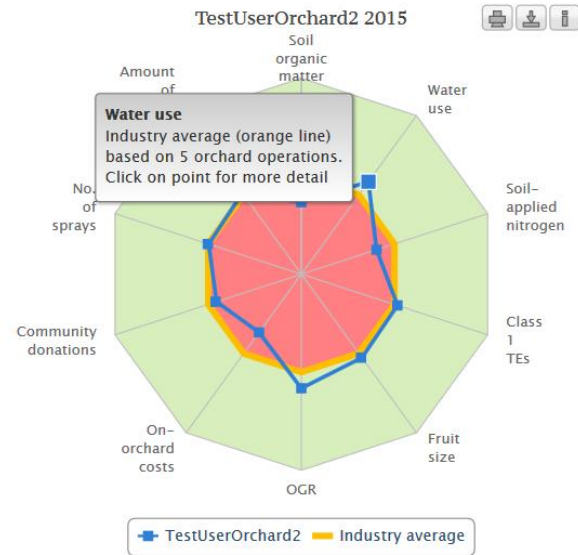Consists of 3 main sections i.e. Home page, Data Entry and Reports
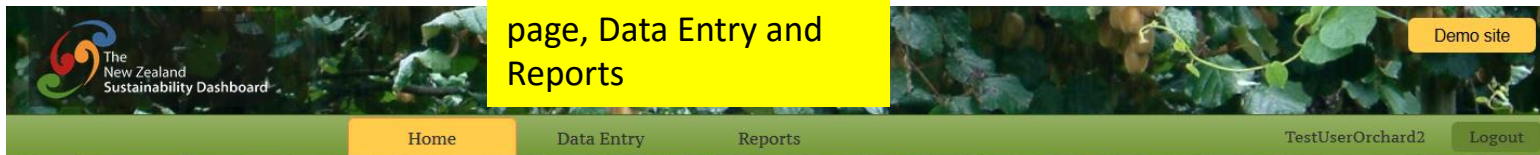
The home page describes the tool and presents a snapshot of the results for the user in the form of a spider chart (see page 7 for how to interpret this)

Feedback button available

Industry partners

Data entry

Home   Data Entry   Reports   TestUserOrchard2   Logout

A user can enter and view data for multiple orchards

Orchard Bombay ▼
Bombay
Calcutta

Year of harvest 2015 ▼   Save

Economic

Production

Financial

Environmental

Social

Governance

Expenditure

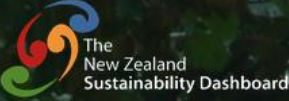|	Total	>
＋ Total on-orchard costs	$ 150,000	❓

By default high level info is requested.

Users have the option to enter more detail, for individual varieties, by clicking the arrows (i.e. ">") next to the 'Total' labels.

Income

	Total	>
Total OGR	$ 450,000	

Data entry is organised by sustainability pillar and outcomes / objectives

Data entry

Data entry

Again, users have the option to enter more detailed info by clicking on the blue '+' icons. This info is available later in reporting.

Help icons guide data entry

Reports

Chart interpretation
Orange line in the middle is average of all orchards (that data has been entered for). Blue points are the average values for the orchards associated with the user that is logged in. If these points are outside the orange line in the green zone then their result is better than average; vice versa if inside the orange line in the red zone
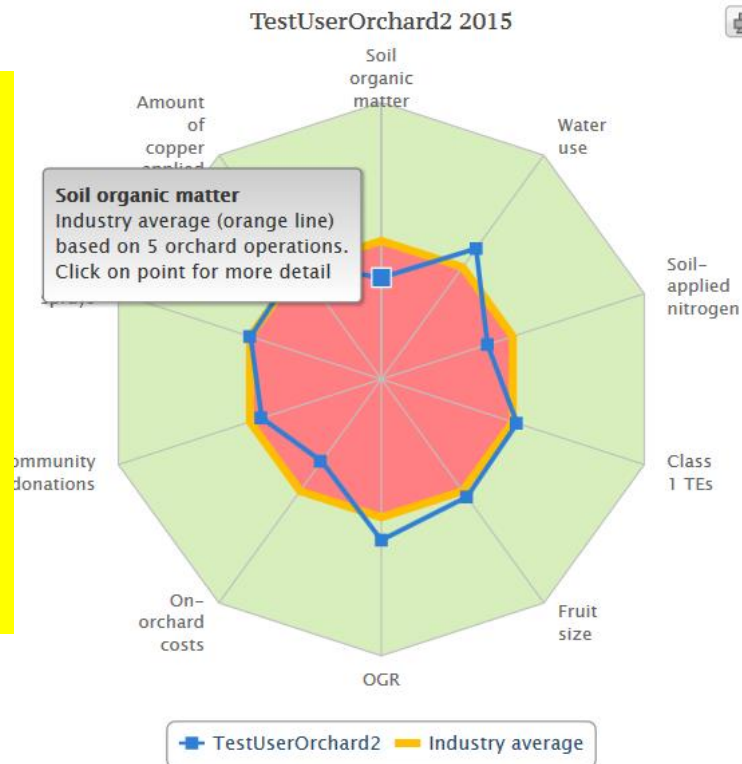
Clicking on the blue points leads to more detailed results including for individual orchards and varieties (see example on next page).

Hovering over the blue points reveals additional context i.e. the number of orchard operations that the average is based on.

Reports

Demo site

Data Entry   Reports

TestUserOrchard3   Logout

Indicator
Amount of copper applied

Orchard
All

Variety
All

Growing Method
All

Vine Status
All

Region
All

Supply Area
All

Spray Period
All

Apply

Orchard Operation - Amount of copper applied

Industry average
Year of harvest : 2012
Value : 2.3938
No. of orchard operations : 3170

Amount of copper applied (kg/ha)

Year of harvest

2009 2010 2011 2012 2013 2014 2015

TestUserOrchard3   Industry average

Postharvest dashboard

Home page

The New Zealand Sustainability Dashboard

Home | Data Entry | Reports | TestUserPackhouse | Logout

Welcome to the Kiwifruit Sustainability Dasł

This tool will allow you to monitor, report and benchmark key performance indicators relating to sustainability.

It is being developed as part of the New Zealand Sustainability Dashboard project, funded by MBIE and supported by a number of kiwifruit partners (shown below).

A major recent development is GHG reporting

Design & functionality similar to orchard dashboard however content differs reflecting the inherently different systems.
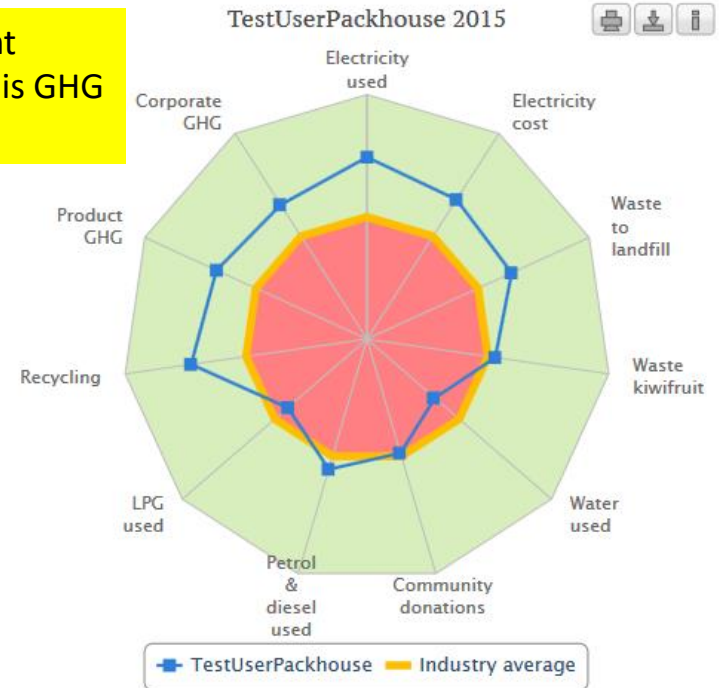
TestUserPackhouse 2015

- Electricity used
- Electricity cost
- Waste to landfill
- Waste kiwifruit
- Water used
- Community donations
- Petrol & diesel used
- LPG used
- Recycling
- Product GHG
- Corporate GHG

TestUserPackhouse — Industry average

Data entry

Demo site

Home   Data Entry   Reports   TestUserPackhouse3   Logout

Site Edinburgh ▼   Year 2015 ▼   Save

Economic
Environmental
Energy
Waste & recycling
Refrigerants
Water
Social
Governance

Electricity use

Electricity used   Time period ● Yearly ○ Monthly

                          Enter amount   8,000,000 kWh

Coolstore use   85 %

                    Or

Packhouse   kWh

Coolstore   kWh

Fuel use

Company fuel use

Type of petrol   Regular ▼

Petrol   10,000 L

Diesel   30,000 L

LPG (e.g. forklifts)   1,000 kg

The following only needs to be completed for calculating greenhouse gas emissions

Contractors

Orchard to packhouse

Truck type   (5) truck, > 32 t ▼

Average distance   15 km

Reports

The New Zealand Sustainability Dashboard

Home | Data Entry | **Reports** | TestUserPackhouse3 | Logout
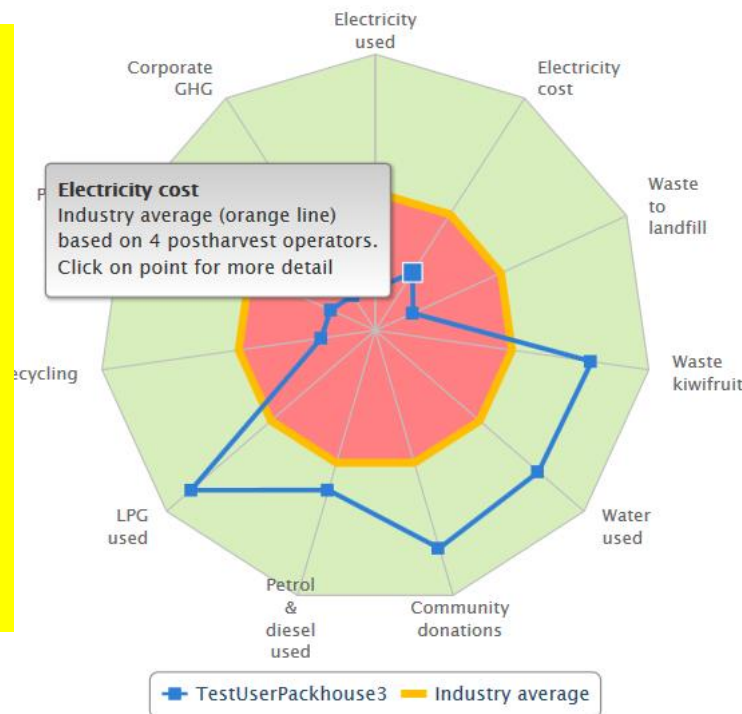
Reports

TestUserPackhouse3 2015

Chart interpretation
Orange line in the middle is average of all industry postharvest operations (that data has been entered for). Blue points are the average values for the sites associated with the user that is logged in. If these points are outside the orange line in the green zone then their result is better than average; vice versa if inside the orange line in the red zone

Electricity used
Corporate GHG
Electricity cost

Electricity cost
Industry average (orange line) based on 4 postharvest operators.
Click on point for more detail

Waste to landfill

Recycling

Waste kiwifruit

LPG used

Water used

Petrol & diesel used

Community donations

→ TestUserPackhouse3 — Industry average

Clicking on the blue points leads to more detailed results including for individual sites (see example on next page).

Hovering over the blue points reveals additional context i.e. the number of operations that the average is based on.
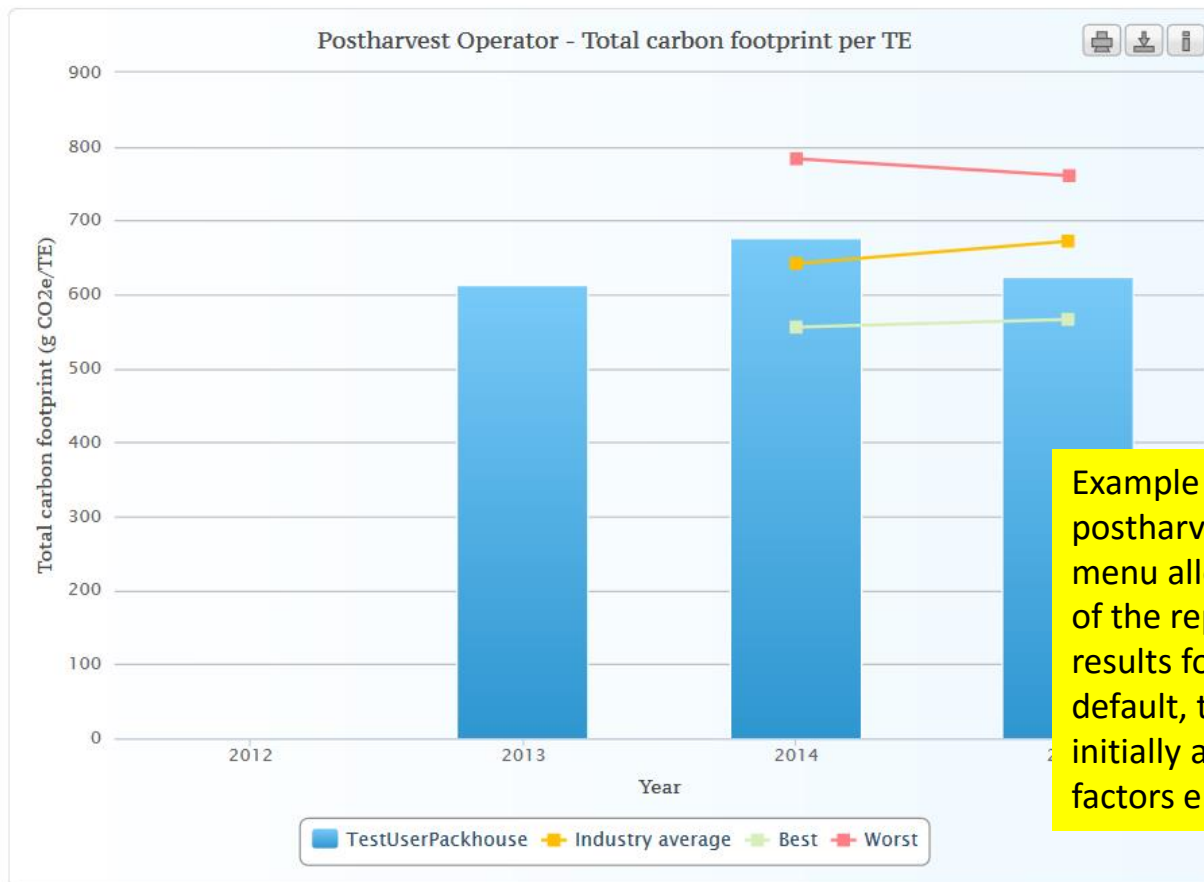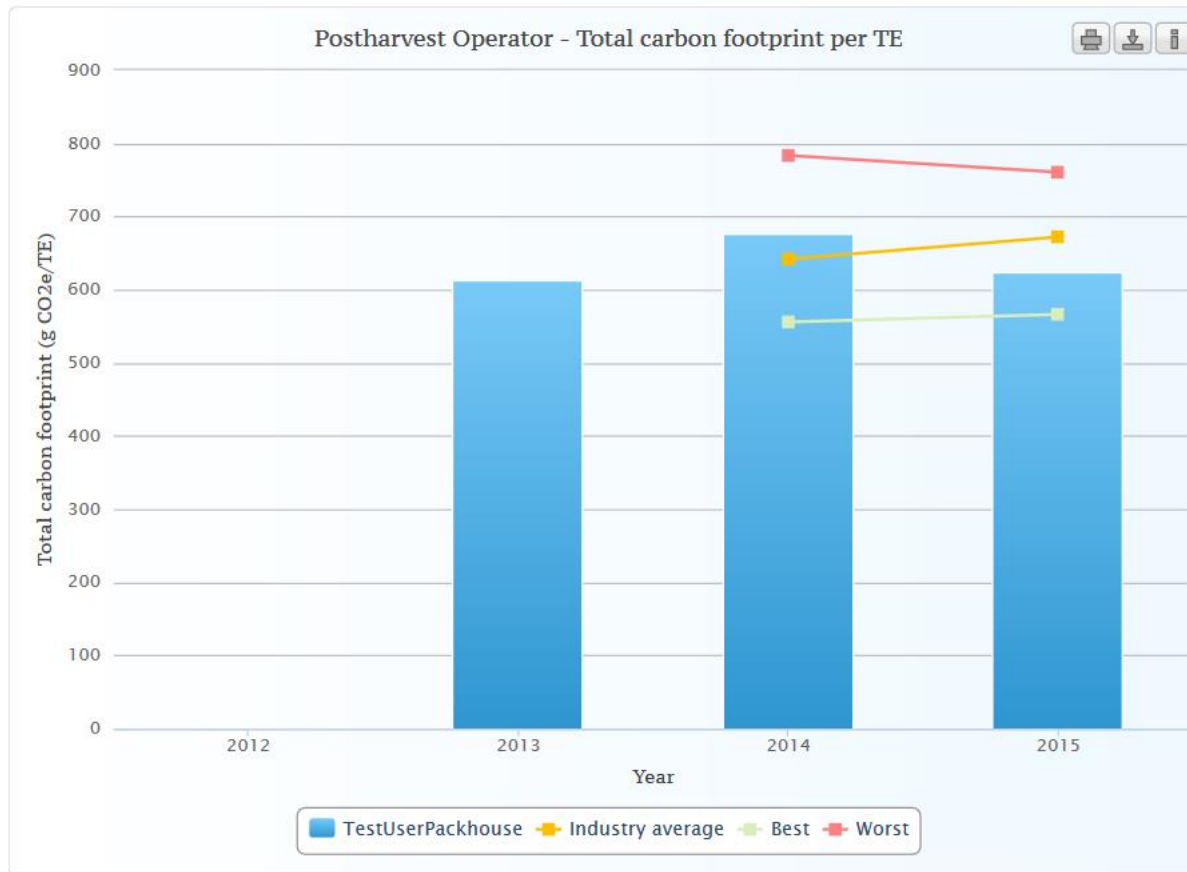
Reports

Example of reporting for a postharvest user. Reporting menu allows for customisation of the reports e.g. for reporting results for a specific site. By default, the results reported initially are the averages of all factors e.g. all sites.

Reports

Zespri dashboard

Home page

The New Zealand Sustainability Dashboard

Home | Reports | Zespri | Logout

A major difference between the Zespri dashboard and the others is there is no 'Data entry' section as reporting here is based on data provided by the orchard and postharvest dashboards which are linked.

Welcome to the Kiwifruit Sustainability Dashb

This tool allows Zespri to generate reports on key performance indicators relating to sustainability.
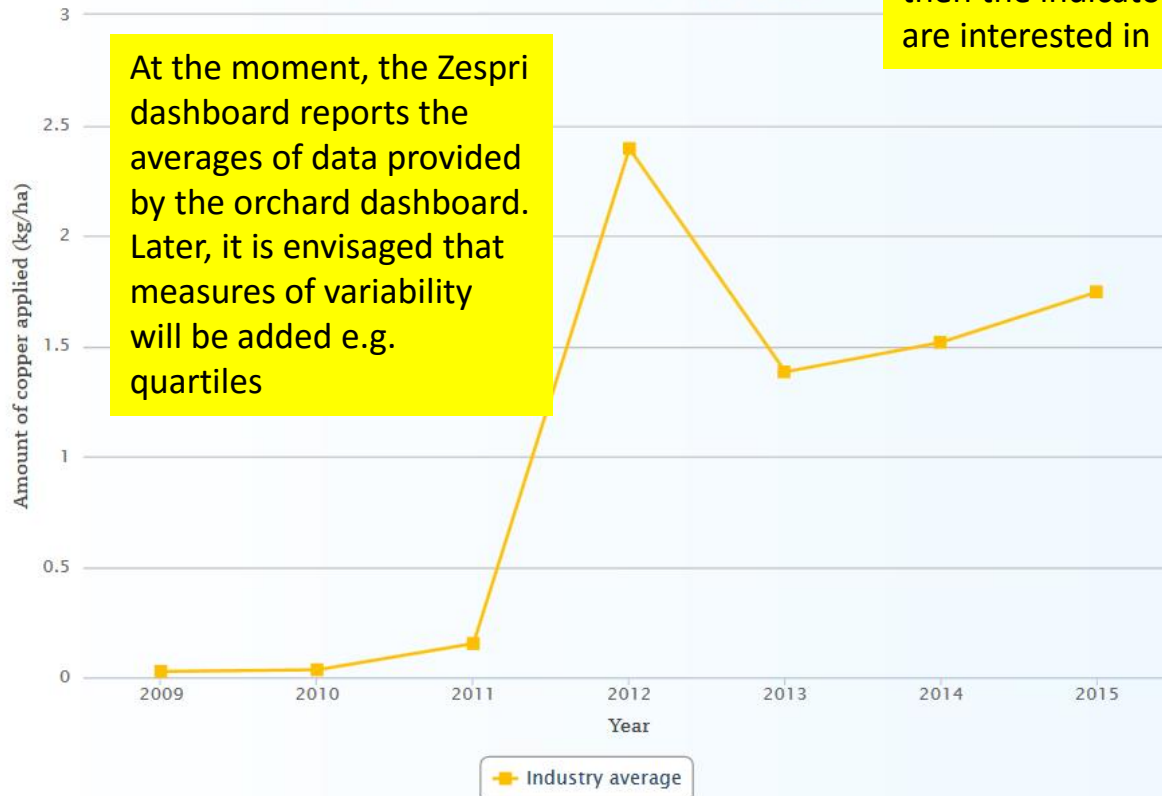
Industry averages, based on data directly entered by growers and postharvest operators, are currently available for the following:

- **Orchards** - Financial (OGR, expenses), production, environmental (spray use, soil quality, water use, soil-applied N) and social (community support)

- **Postharvest** - Financial (electricity cost), environmental (electricity use, waste and fuel consumption) and social (community support)

To start accessing this information, click on the 'Reports' tab above.

This is a prototype, underpinned by orchard and postharvest dashboard tools currently being developed. It will be developed further over the next 2 to 3 years, during which time the design, content and functionality is expected to change significantly based on industry feedback.

The NZ Sustainability Dashboard tools are being developed as part of the New Zealand Sustainability Dashboard project, funded by MBIE and supported by a number of kiwifruit partners (shown below).

Zespri Kiwifruit | Trevelyan's pack and cool ltd | DMS Increasing Grower Profit | OPAC | PlusGroup HORTICULTURE | TE AWANUI Ki Te Whai Ao

Reports

Home   Reports   Zespri   Logout

Reports

Orchard Operation - Amount of copper applied

User can select 'Orchard' or 'Postharvest' system then the indicators they are interested in

At the moment, the Zespri dashboard reports the averages of data provided by the orchard dashboard. Later, it is envisaged that measures of variability will be added e.g. quartiles

System
Orchard

Indicator
Amount of copper applied

Variety
All

Growing method
All

Vine Status
All

Region
All

Supply Area
All

Spray Period
All

Apply

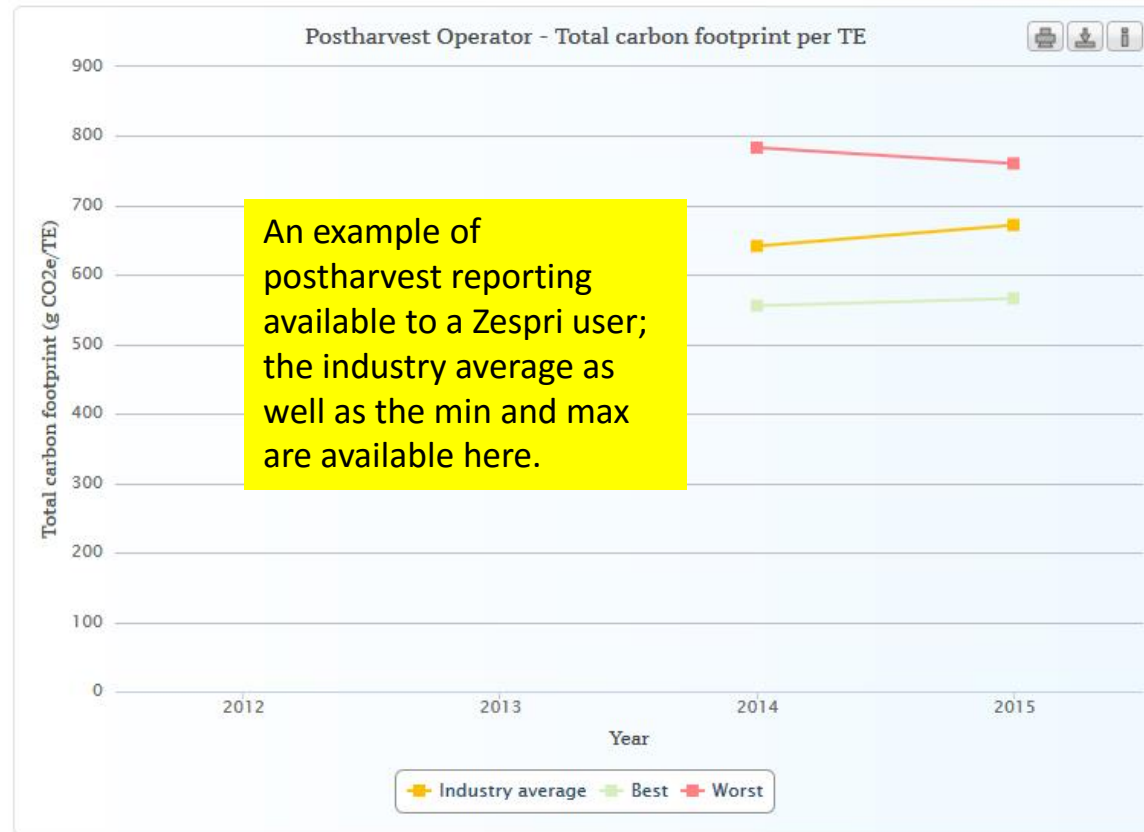Amount of copper applied (kg/ha) — Year axis: 2009, 2010, 2011, 2012, 2013, 2014, 2015

Industry average

Reports

An example of postharvest reporting available to a Zespri user; the industry average as well as the min and max are available here.