

## **Final Report**

# **Mushroom educational resources**

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**Delivery partner:**

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**Project code:**

MU22002

**Project:**

*Mushroom educational resources* (MU22002)

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**Funding statement:**

This project has been funded by Hort Innovation, using the mushroom research and development levy and contributions from the Australian Government. Hort Innovation is the grower-owned, not-for-profit research and development corporation for Australian horticulture.

**Publishing details:**

Published and distributed by: Hort Innovation

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[www.horticulture.com.au](http://www.horticulture.com.au)

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## Contents

|                              |               |
|------------------------------|---------------|
| Public summary               | 4             |
| Keywords                     | 5             |
| Introduction                 | 6             |
| Methodology                  | 7             |
| Results and discussion       | 7             |
| Outputs                      | 8             |
| Outcomes                     | 11            |
| Monitoring and evaluation    | 12            |
| Recommendations              | 13            |
| Intellectual property        | 14            |
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## Public summary

Primary Industries Education Foundation Australia has worked with Hort Innovation to produce a series of lessons about mushrooms and their production. These provide the first secondary linked resources to showcase mushrooms to a wider school audience. The resources are linked to the current Australian Curriculum and provide a wide variety of hands on, interactive activities for teachers to use with students. With an increasing number of schools becoming interested in mushroom production, these lessons provide a detailed understanding of the science behind mushrooms that is accessible to a range of teachers and school settings.

Comprehensive resources targeting Science and Design and Technology curriculums for years 7 to 10, feature detailed teacher lesson guides, engaging student worksheets that can be used online or as downloadable PDFs, and suggested answers to support teachers and students. Included is an associated supply chain card game that is linked to the resources, featuring supply chain steps and careers within mushroom production. The lessons include content about: What are Mushrooms?, Mushrooms, Foods Webs and Energy Flow, Identifying Mushrooms, Using and Designing Dichotomous Key, Investigating the Growth of Mushrooms, Mushrooms -The Supply and Marketing Chain, Sustainable Food Choices, Focus on Healthy Eating and Healthy Choices.

These resources provide a comprehensive insight into the mushroom industry for Australian schools. They are current and contain links and case studies to the science and production of mushrooms relevant to the Australian Curriculum and contain activities that allow students to develop targeted skills within the curriculum. The resources feature the *Agaricus bisporus* mushroom in many activities. Primary Industries Education Foundation Australia works closely with Hort Innovation on a variety of curriculum based resources. These resources will be available on <https://www.primezone.edu.au/> for teacher and student access.

## Keywords

Mushrooms, education, schools, curriculum, resources, teaching, Australian Curriculum, science, technology

## Introduction

The project was undertaken to provide more comprehensive teaching material for secondary schools about Mushrooms. The teaching materials target to the Australian curriculum and support teaching in science and technology.

## Methodology

A series of lessons targeting the Australian curriculum were developed and designed into hands on, and technical resources for use in Australian classrooms.

The lesson resources are attached to the final submission. These comprise of a series of pdf files with the lesson content.

## Results and discussion

The lessons have been submitted and contain all the work completed.

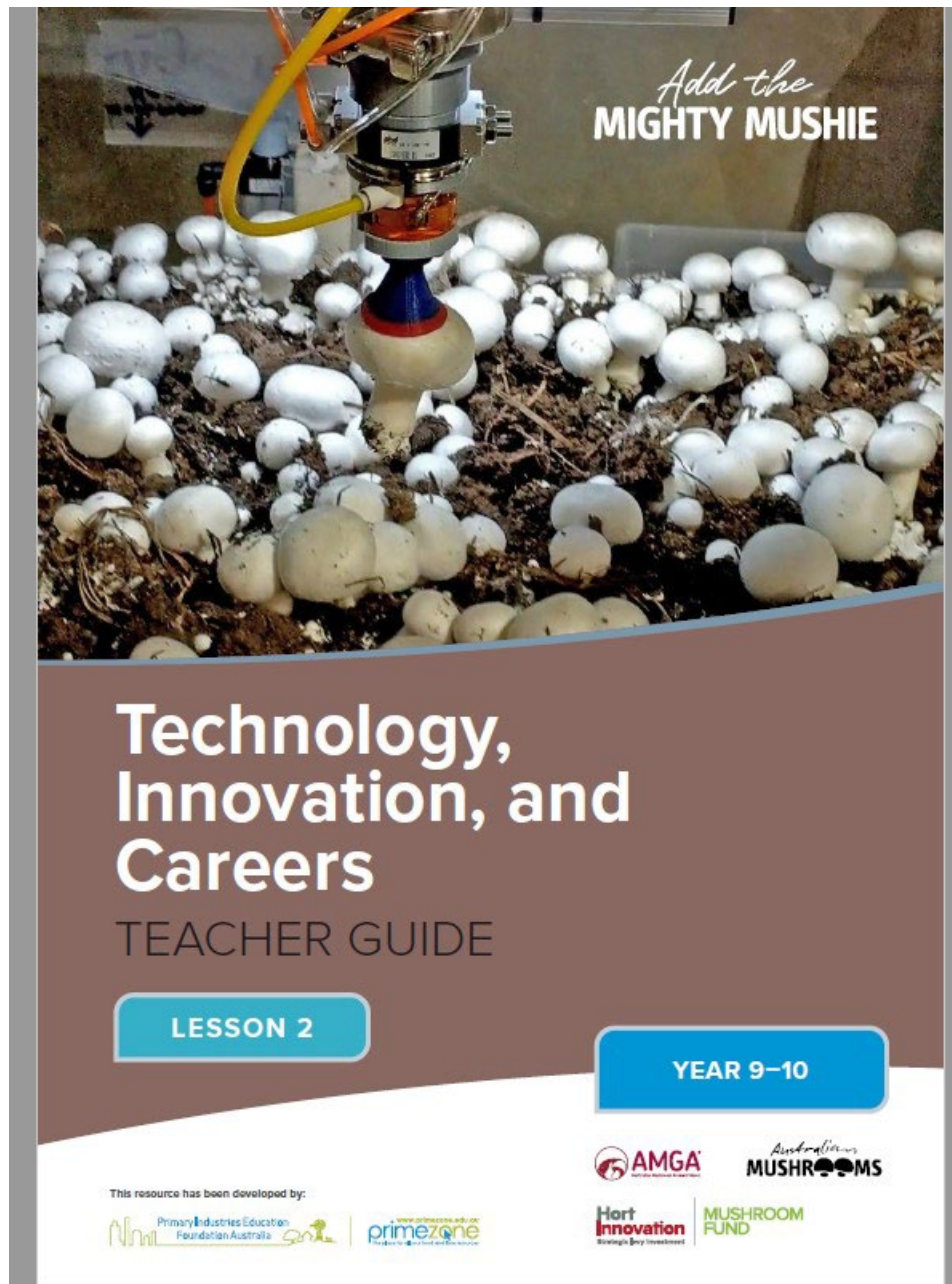
## Outputs

Table 1. Output summary

| Output                                                                             | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Detail                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A series of Australian curriculum linked secondary school lessons about Mushrooms. | Primary Industries Education Foundation Australia has worked with Hort Innovation to produce a series of lessons about mushrooms and their production. These provide the first secondary linked resources to showcase mushrooms to a wider school audience. The resources are linked to the current Australian Curriculum and provide a wide variety of hands on, interactive activities for teachers to use with students. With an increasing number of schools becoming interested in mushroom production, these lessons provide a detailed understanding of the science behind mushrooms that is accessible to a range of teachers and school settings. | <p>Comprehensive resources targeting Science and Design and Technology curriculums for years 7 to 10, feature detailed teacher lesson guides, engaging student worksheets that can be used online or as downloadable PDFs, and suggested answers to support teachers and students. Included is an associated supply chain card game that is linked to the resources, featuring supply chain steps and careers within mushroom production. The lessons include content about: What are Mushrooms?, Mushrooms, Foods Webs and Energy Flow, Identifying Mushrooms, Using and Designing Dichotomous Key, Investigating the Growth of Mushrooms, Mushrooms -The Supply and Marketing Chain, Sustainable Food Choices, Focus on Healthy Eating and Healthy Choices.</p> <p>These resources provide a comprehensive insight into the mushroom industry for Australian schools. They are current and contain links and case studies to the science and production of mushrooms relevant to the Australian Curriculum and contain activities that allow students to develop targeted skills within the curriculum. The resources feature the <i>Agaricus bisporus</i> mushroom in many activities. Primary Industries Education Foundation Australia works closely with Hort Innovation on a variety of curriculum based resources. These resources will be available on <a href="https://www.primezone.edu.au/">https://www.primezone.edu.au/</a> for teacher and student access.</p> |

Photos/images/other audio-visual material





## Outcomes

**Table 2. Outcome summary**

| Outcome                                                                                                                                                                                                                                                                                          | Alignment to fund outcome, strategy and KPI                                                                                  | Description                                                                                                                                                 | Evidence                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>A means to enhance mushroom industry related content in secondary school classroom content.</p> <p>The desired long term outcome is to increase interest in the mushroom industry, further encouraging students to explore career pathways for both horticulture and mushroom industries.</p> | <p>Outcome 1: Demand creation supports the Australian Mushroom industry to develop existing and future domestic markets.</p> | <p>Increased understanding and awareness of the Mushroom industry amongst secondary school students and their teachers due to use of the new resources.</p> | <p>Providing teachers with curriculum linked resources that have hands on and engaging learning activities will assist teachers who have never taught content about mushrooms to feel confident and capable of encouraging learning about Mushrooms. It will also strengthen the programs and resources of teachers who have established mushroom programs. As a result the frequency and accuracy of mushroom industry related content in secondary school environments should hopefully increase.</p> |

## Monitoring and evaluation

Table 3. Key Evaluation Questions

| Key Evaluation Question                                                | Project performance                                                                                                                                                                                     | Continuous improvement opportunities |
|------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| Do the completed teaching materials contain accurate data and content? | Extensive review from Hort Innovation and AMGA was made throughout resource development.<br><br>Teacher reviews have indicated the teaching materials are excellent for purpose and curriculum aligned. |                                      |

## Recommendations

Promote awareness of the new teaching resources and their use in Australian secondary schools to facilitate

- Increased interest in the Mushroom industry
- Increased application of hands on practical activities in the classroom about mushrooms
- Science and technology aligned content.

## Intellectual property

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