



Consumer requirements for commercial plant products

Case Study *Pinus radiata*

Outcomes

A student:

P2.1 describes the biological and physical resources and applies the processes that cause changes in plant production systems

P3.1 explains the role of decision-making in management and marketing of agricultural products in response to consumer and market requirements

Students learn about:

Consumer and market requirements for commercial products

Students learn to:

Recognise the features of plant products that are important to consumers

Radiata Pine: *Pinus radiata*

Watch the following introduction to the Radiata Pine before completing your case study.

[South Australia's Pine tree experts.](https://www.youtube.com/watch?v=ft7KsDzU0gw)

<https://www.youtube.com/watch?v=ft7KsDzU0gw>

(5.34)





ACTIVITY ONE:

Visit the following link to collect information on the characteristics and features of the 'Remarkable Pine'.

Complete the attached worksheet by filling in the missing information.

Resource One

Refer to the information provided by the [Forestry Corporation of NSW on Radiata Pine](http://www.forestrycorporation.com.au/our-forests/education/resources-and-publications/wild-forest/woodwork/info/forest-supermodels/radiata-pine/remarkable-pine).

<http://www.forestrycorporation.com.au/our-forests/education/resources-and-publications/wild-forest/woodwork/info/forest-supermodels/radiata-pine/remarkable-pine>

A typical radiata pine tree in NSW is around _____ metres tall and _____ a metre across at chest height when harvested at about age _____.

"It is a tree which is suited to a _____ range of growing conditions, is easily _____ and planted, and provides larger _____ of usable timber in a _____ time than many _____ species.

The tree has many uses some of which include: (select at least 4)



A)

B)

C)

D)



The tree is a **SOFTWOOD** species which means that:

Australian plantations amount to _____ ha

There are around _____ ha of radiata pine plantations in NSW. Of these plantations, 64 500 ha (_____) are private plantations and 187 000 ha (75%) are _____ plantations.

When grown as a plantation tree, radiata pine is usually a _____ straight tree with _____ branches, except on the edge of the plantation where the accessibility to light and space allows the trees to grow large branches. Genetic improvements have contributed to the improvement in _____ and form (_____ and _____) of plantation-grown radiata pine.

The tree has a wide tolerance to _____ and _____; however, the species performs poorly in heavy clay soils. Suitable soils should have a depth of at least



_____cm with well-drained subsoil and weathered rock, which is penetrable by water and root systems." Forestry Corporation accessed 4th April 2017

Activity Two

Annotate the desirable features of the plant from the above information in **one colour**. In a **second colour**, underneath your annotation explain (cause and effect) why this is a desirable feature to the producer and/or manufacturer and/or consumer. An example has been included to guide you.

After you have finished annotating the above information onto the diagram, visit the following links if to add additional information to your *Pinus radiata* diagram

Resource Two

http://www.forestrycorporation.com.au/_data/assets/pdf_file/0003/238449/radiata-pine.pdf

Resource Three

<https://www.youtube.com/watch?v=vcckY-YW5Ko> 19.14

Pinus radiata



Tall straight tree

High yield of straight timber that is uniform and therefore can be used for such purposes as power poles



Activity Three

In collecting information on the most desirable characteristics of a Radiata Pine, you will now have an understanding of the features of an undesirable plant for producers/consumers/manufacturers. In the space below draw a diagram of an undesirable Radiata Pine showing at least 5 negative factors and annotate them appropriately.

Activity Four

Complete the following questions.

1. Identify 3 consumer and/or market requirements of a plant product you have studied.

2. For one of the requirements you have identified above, explain why this feature is important to consumers and/or the market.



References

1. Going Bush South Australia's Pine Experts accessed 4/04/2017

<https://www.youtube.com/watch?v=ft7KsDzU0gw>

2. Radiata Pine (image) Forestry Corporation of NSW accessed 3/04/2017

https://www.google.com.au/search?q=radiata+pine+nsw+forestry&espv=2&source=lnms&tbm=isch&sa=X&ved=0ahUKEwjQjOHVq4fTAhXCipQKHS5B8EQ_AUIBigB&biw=1600&bih=770#imgsrc=y3g33Ciba2y-UM:

3. Radiata Pine logs awaiting transport accessed 3/04/2017

https://encryptedtbn2.gstatic.com/images?q=tbn:ANd9GcR5RK1OrD39YEBBW_aksAK7moXaoB4Tvx-yOXLQbw4G5mOM6fxNVQ

4. Forestry Corporation accessed 4/04/2017

<http://www.forestrycorporation.com.au/community/education/resources-and-publications/wild-forest/woodwork/info/forest-supermodels/radiata-pine/remarkable-pine>

5. Forestry Corporation Radiata Pine Fact Sheet accessed 2/04/2017

http://www.forestrycorporation.com.au/_data/assets/pdf_file/0003/238449/radiata-pine.pdf

6. Pine Forests - Forestry Commission NSW - Historic accessed 2/04/2017

<https://www.youtube.com/watch?v=vcckY-YW5Ko>

6. Tasmanian timber accessed 2/04/2017



https://www.google.com.au/search?q=radiata+pine+image&source=lnms&tbn=isch&sa=X&ved=0ahUKEwjHib6a8InTAhWlKpQKHaNzCcYQ_AUICCGB&biw=1600&bih=770#imgsrc=yusQ9mQilCifFM:

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