

# Weed fast facts

Information on common pasture weeds  
to support management decisions

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*Weed Fast Facts was developed by Lisa Miller and Jess Brogden, Southern Farming Systems; and Cam Nicholson, Nicon Rural Services.*

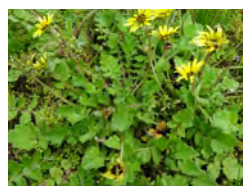


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## **Capeweed** (*Arctotheca calendula*)

- 1. Growth 29
- 2. Grazing value 30
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## **Erodium** (*Erodium spp.*)

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## **Fat hen** (*Chenopodium album*)

- 1. Growth 35
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## **Flatweed** (*Hypochoeris radicata*)

- 1. Growth 38
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## **Clammy goosefoot** (*Chenopodium pumilio*)

- 1. Growth 41
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- 3. Interventions 43



## **Onion grass** (*Romulea rosea*)

- 1. Growth 44
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- 3. Interventions 46



## **Sow thistle** (*Sonchus spp.*)

- 1. Growth 47
- 2. Grazing value 48
- 3. Interventions 49



## **Wireweed / hogweed** (*Polygonum spp.*)

- 1. Growth 50
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- 3. Interventions 52

*Weed fast facts* is an information guide on 15 different common pasture weeds to support management decisions. The purpose of *Weed fast facts* is to:

- help you understand how weeds grow
- identify the problems weeds cause
- outline weeds' benefits in terms of their contribution to feed available for grazing
- provide facts on interventions and when tactics should be implemented.

Information on each weed is presented in three wheels: growth, grazing value, and interventions. The wheels are based around a monthly calendar, which represents the cyclical nature of plant growth.

## Growth wheel

The growth wheels provide a visual of the weed's life cycle over the year. It illustrates how the weed grows, the conditions that favour its growth and its likely causes to help reduce its presence and achieve long-term control.

## Grazing value wheel

A weed's benefit is its contribution to the quantity and quality of feed available for grazing. The grazing value wheel shows the feed quality the weed provides during its lifecycle and facts related to palatability and potential toxicity. In most cases, unless the weed is toxic, weeds provide good nutritional value during their vegetative growth stage (prior to flowering). More information on feed quality terms and what the numbers mean is on page 6.

## Intervention wheel

Intervening to remove the weed requires knowledge of the tactics that can be used to control the weeds. These are shown in the intervention wheel calendar. Additional facts to consider for achieving long-term control are also provided.

Together, this information can help you decide what action to take. Weed control decisions require appreciating and comparing the benefits and costs, and pros and cons of both the weed and its interventions.

## Navigating *Weed fast facts*

This document contains hyperlinks that allow you to move to each weed or wheel you are interested in viewing. In the main menu, hover your cursor over the weed or wheel you wish to view. The cursor changes to a hand, click and you will be taken to this section.

To move between wheels of growth, grazing value or interventions for a selected weed, hover your cursor on the wheel you wish to view, when the cursor changes to a hand, simply click and you will be taken to that wheel. From individual weed wheels, you can return to the main menu by clicking on its name, which is located on the top right-hand side. In the grazing value wheel, 'about feed quality' is also hyperlinked, which is located at the bottom right-hand page side.

# About feed quality information

[Main menu](#)

The feed quality information relates only to the grazeable component of the weed species which were sampled on a monthly basis. Information was tested through FeedTest operated by Agrifood Technology Pty Ltd, Werribee. Refer to their website for information on test procedures.

## Abbreviations used within the document are:

**DM** = Dry matter (%)

**ME** = Metabolisable energy (MJ ME/kg DM)

**DDM** = Digestibility (%)

**CP** = Crude protein (%)

The ranges of feed quality used within weed facts are found in tables 1, 2 and 3, with a description of their dietary value and impact on animal production.

**Table 1.** Weed dry matter (%) ranges and their dietary value

Dry matter % ranges	Dietary value
< 10%	Lush weed, excessive water content, insufficient fibre, results in loose, runny faeces
10 - 15%	Short leafy weed, very high water content, sufficient fibre
15 - 20%	Leafy weed, high water content, sufficient fibre
20 - 30%	Vegetative weed, high water content, sufficient fibre
30 - 50%	Stemmy weed, moderate water content, fibre levels increasing, reduced intake
50 - 80%	Mature weed, low water content, high fibre, lowered intake
> 80%	Aged weed, very low water content, very high fibre, substantially reduced intake

**Table 2.** Weed digestibility % and ME (MJ/ME/kg DM) ranges and their dietary value

Digestibility % ranges	ME ranges	Dietary value
> 80%	> 12	Very high quality, fastest rate of digestion and highest intake
75 - 80%	11 - 12	High quality, rapid rate of digestion, sufficient intake
65 - 75%	9 - 11	Moderate quality, rate of digestion, some reduced intake
50 - 65%	7.5 - 9	Poor quality, slow digestion, lowered intake
45 - 50%	5.5 - 7.5	Very poor quality, very slow digestion, substantially reduced intake

**Table 3.** Crude Protein (%) ranges and their dietary value

Crude protein % ranges	Dietary value
> 20%	Very high, would meet all animal demands for high protein
15 - 20%	High, would meet all weaner demands for high protein
10 - 15%	Moderate, meet lactation demands
6 - 10%	Low, support only dry stock demands
<6%	Very low, does not meet animal demands

*Click on the below to return to each weed's grazing value*

[Annual ryegrass](#)

[Soft brome grass](#)

[Winter grass](#)

[Fat hen](#)

[Onion grass](#)

[Barley grass](#)

[Bent grass](#)

[Capeweed](#)

[Flatweed](#)

[Sow thistle](#)

[Silver grass](#)

[Fog grass](#)

[Erodium](#)

[Goosefoot](#)

[Wireweed](#)

**Dry matter (DM)** is the percentage of feed remaining if all the water was removed. The dry matter is the important component as it contains the energy and protein needed for growth and maintenance and allows feed value comparison across a range of weed species. DM ranges from very low at less than 10% during winter and when the plant is vegetative and greater than 80% following reproductive growth when it becomes dry and brittle. DM also contains fibre which increases as plants mature and dry off.

**Digestibility (DDM)** is an estimate of the percentage of the dry matter which is retained by the grazing animal for growth and maintenance. For example, 80% digestibility would mean 80% of the DM is used for growth and 20% is not used and would be excreted as waste products dung, urine and methane. Low digestibility in the rumen means feeds must be retained for prolonged periods to be ruminated and digested by microbes. This slow emptying of the rumen causes the rumen to become distended and causes the animal to reduce its feed intake. As animals may only ruminate for up to 13 hours per day, the animal may run out of time to meet its daily intake requirements. Weed digestibility ranges are from less than 50% to greater than 80%. High quality feed is regarded as greater than 75% and poor quality less than 65%.

**Metabolisable energy (ME)** is the energy contained in the weeds and is calculated from determination of the digestibility of the organic dry matter through the following equation:  $ME = 0.17 \text{ DDM}\% - 2.0$ . Daily energy requirements of stock classes are well documented. A dry sheep equivalent (DSE), e.g. 50kg dry sheep condition score 3 requires 8 MJ of ME per day for maintenance. A weed with ME below 9 would be considered poor quality and high quality would be above 11 MJ/kg DM.

**Crude protein (CP)** is the total protein in a feed and provides the animal with a source of nitrogen. Dry (non-lactating), lactating and growing livestock have different requirements for CP as shown in Table 3. Green weeds are generally not limited in protein and any excess protein is converted to ammonia where it is used by rumen bacteria and the rest excreted in urine. Energy is needed to rid the body of excess ammonia which can cause issues if energy requirements are not met. When protein content of dry weeds fall below 6% during summer, stock struggle to digest feed as the rumen micro-organisms lack a nitrogen source (i.e. ammonia) to break down cellulose.

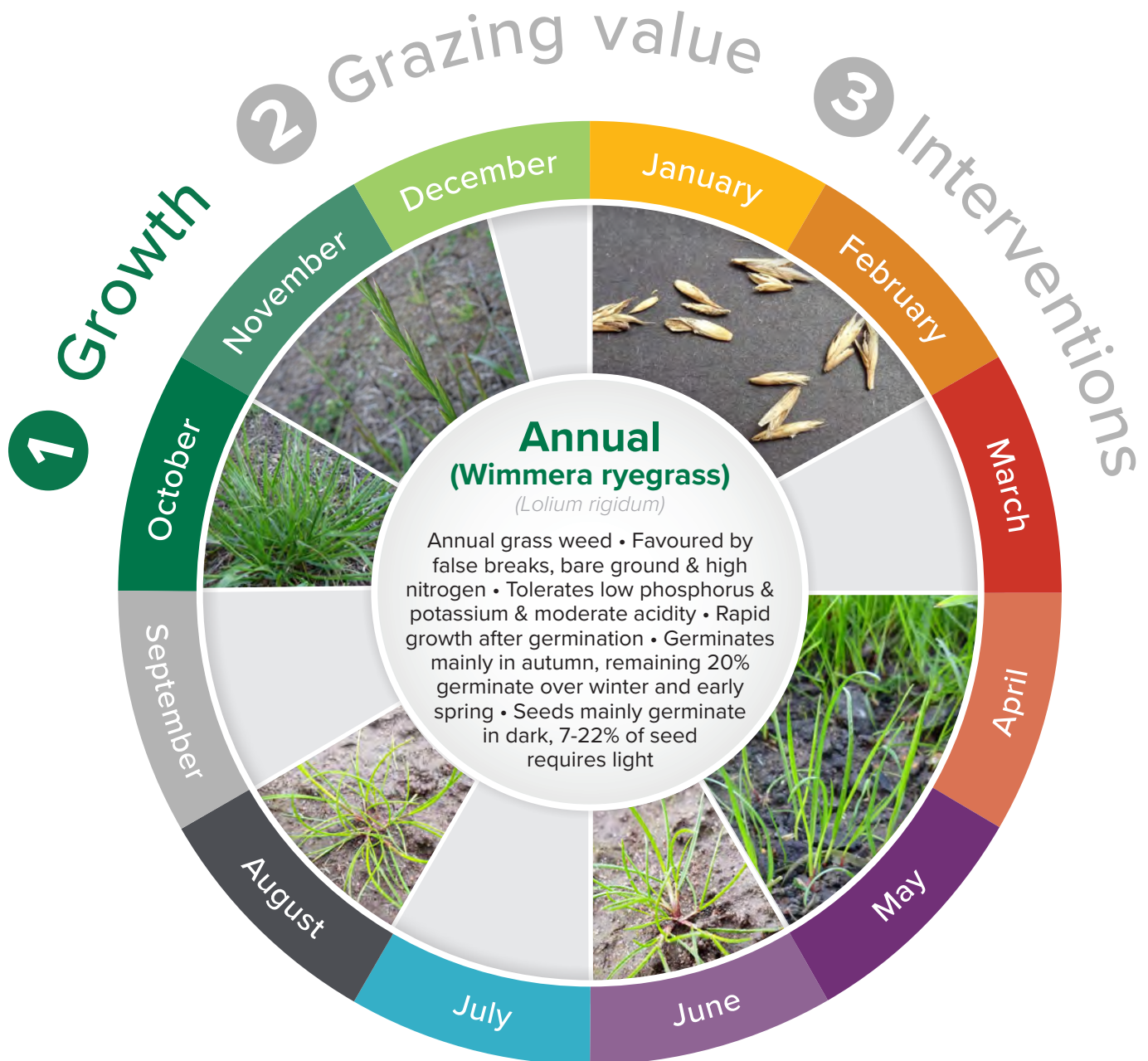
# Annual (wimmera ryegrass)

*Lolium rigidum*

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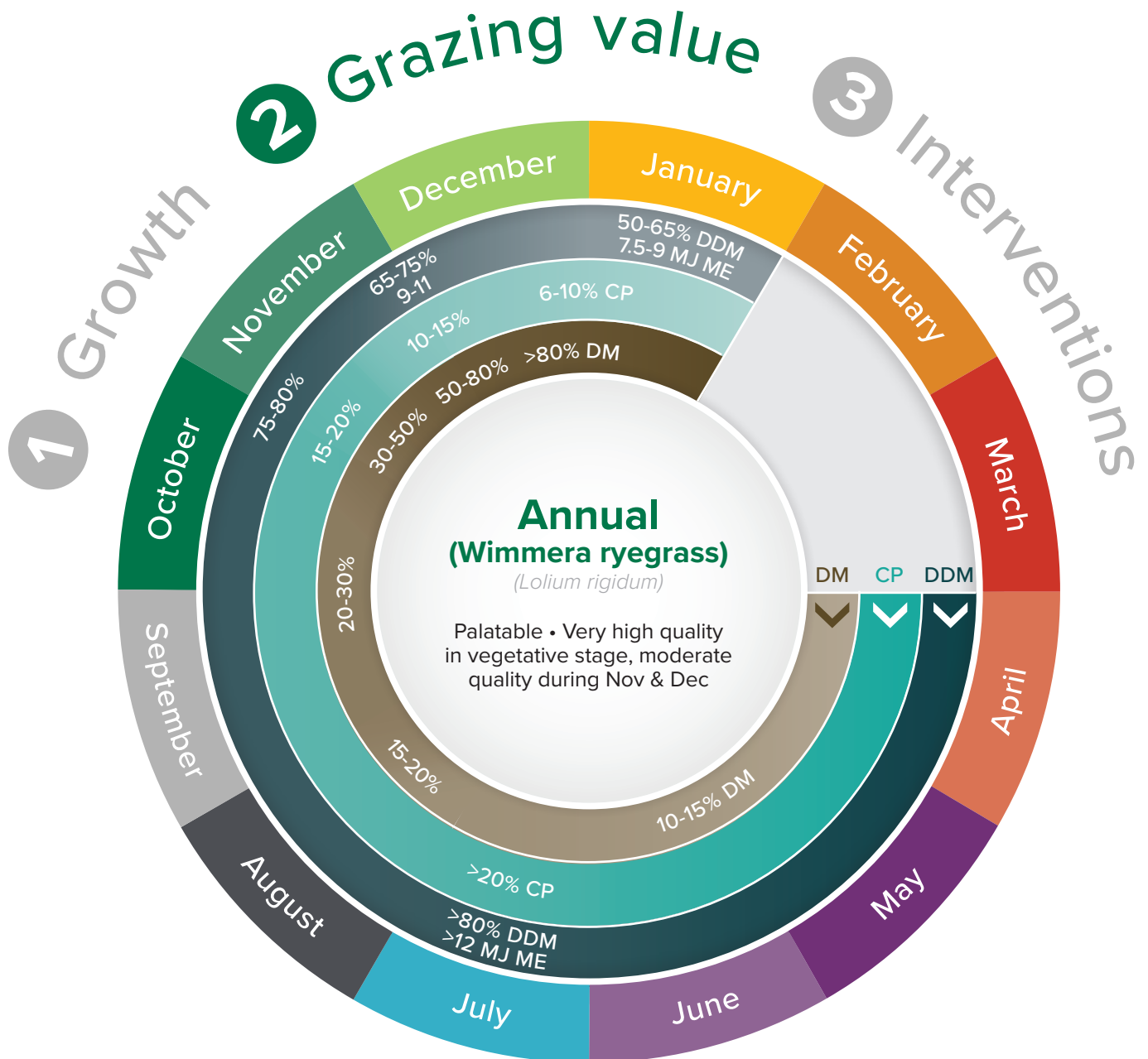
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**DDM & ME** • Digestibility and metabolisable energy

[About feed quality information](#)

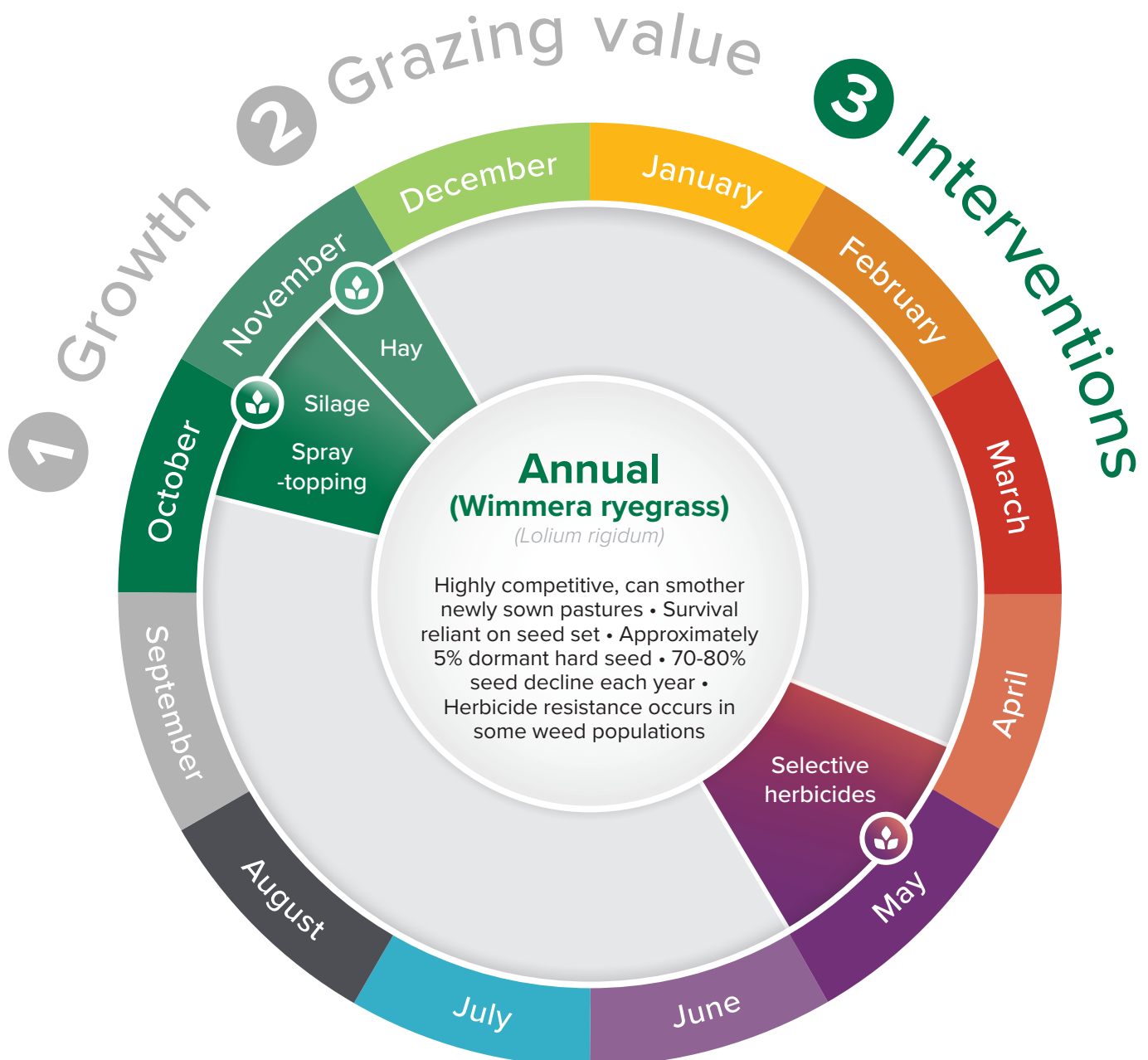
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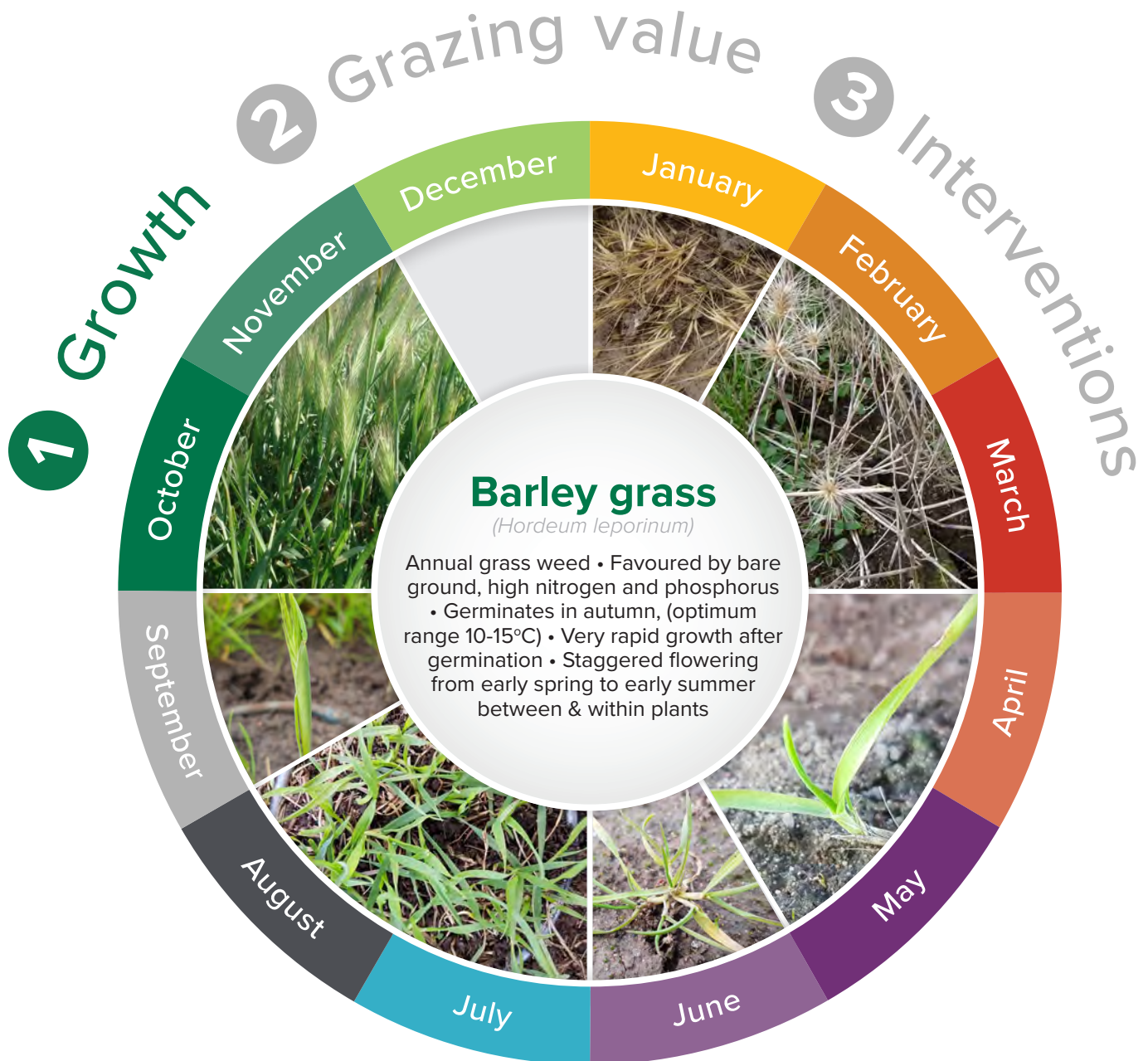
# Barley grass

*Hordeum leporinum*

Main menu

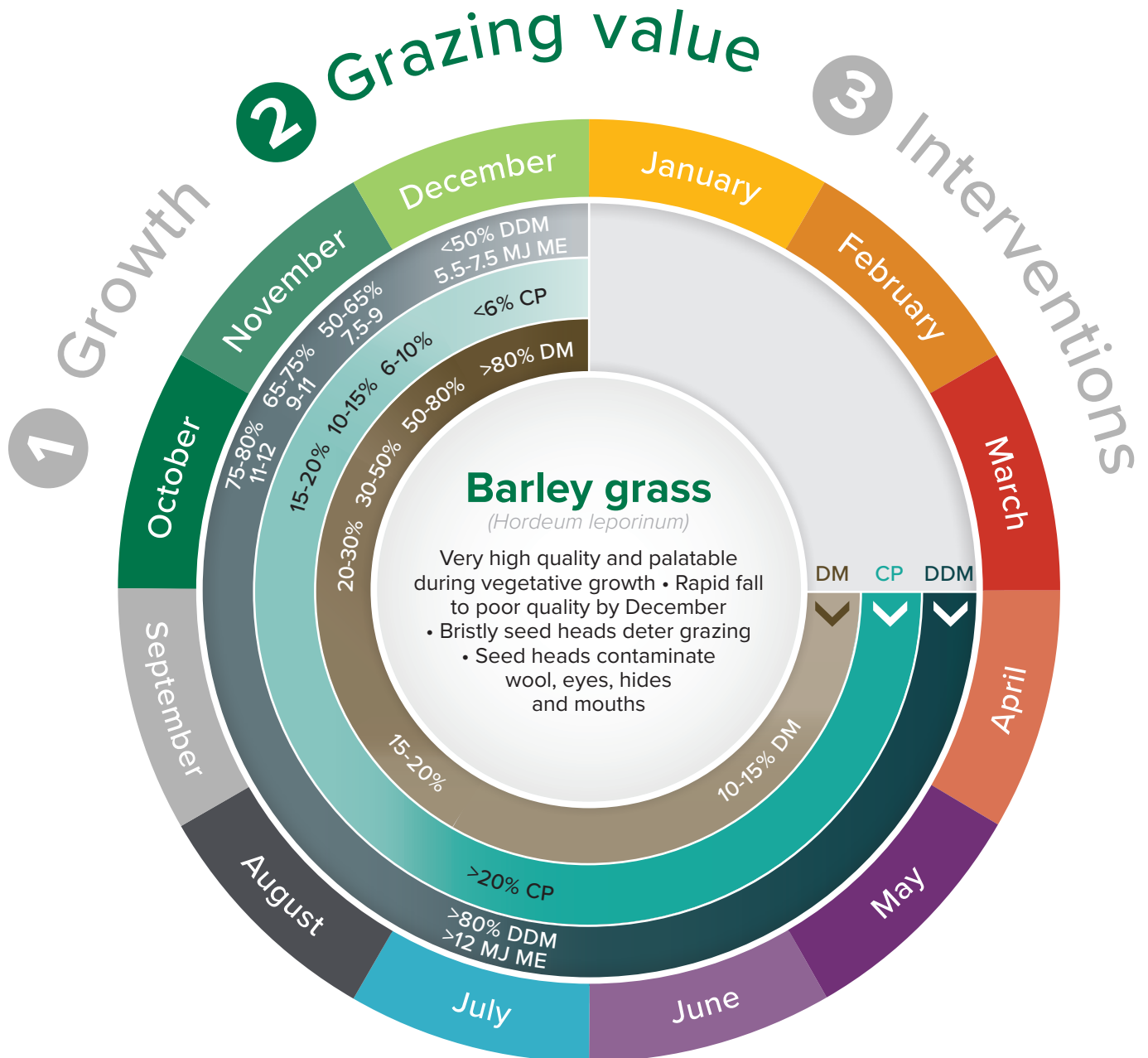
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About feed quality information

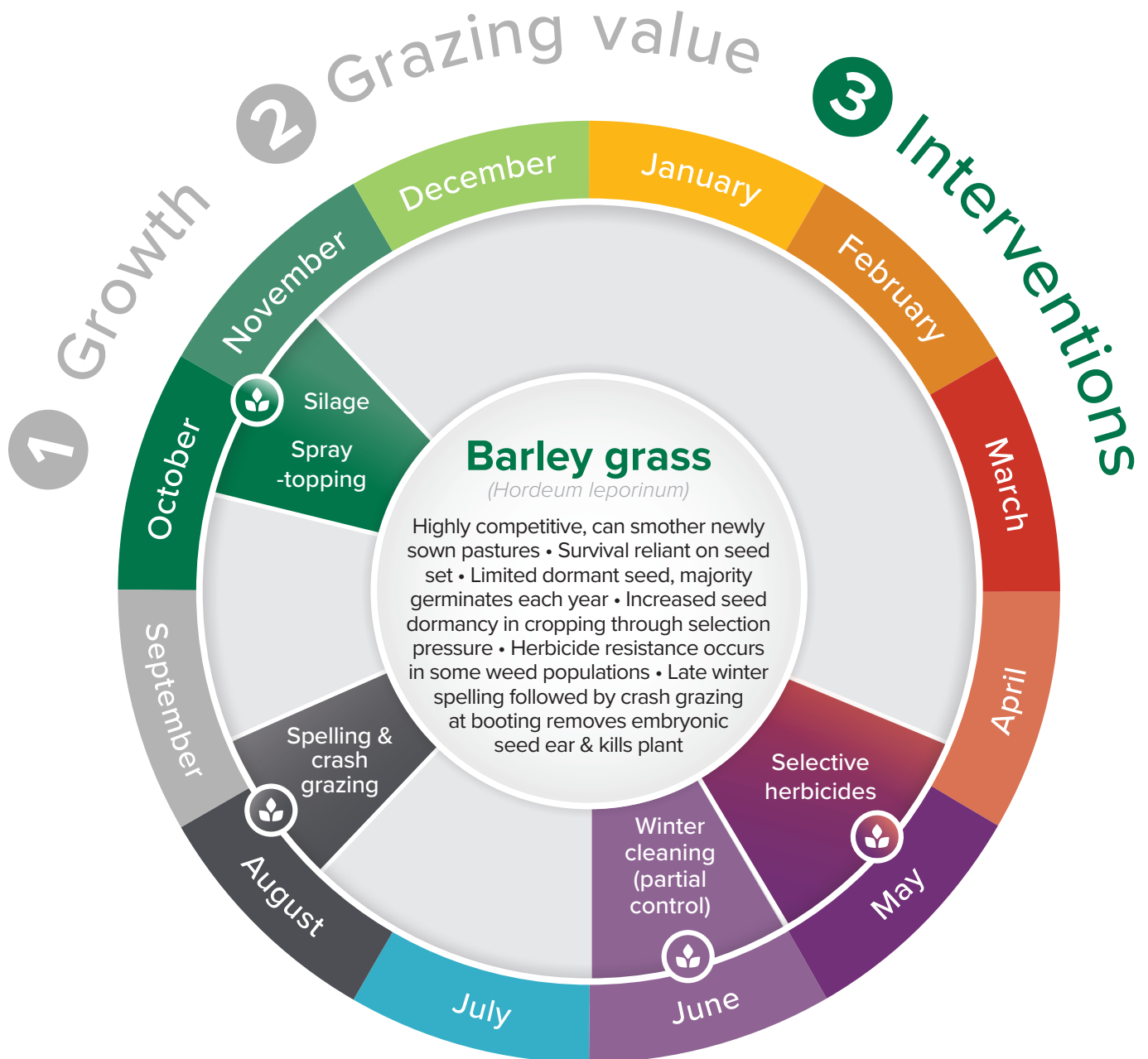
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# Silver grass

*Vulpia spp.*

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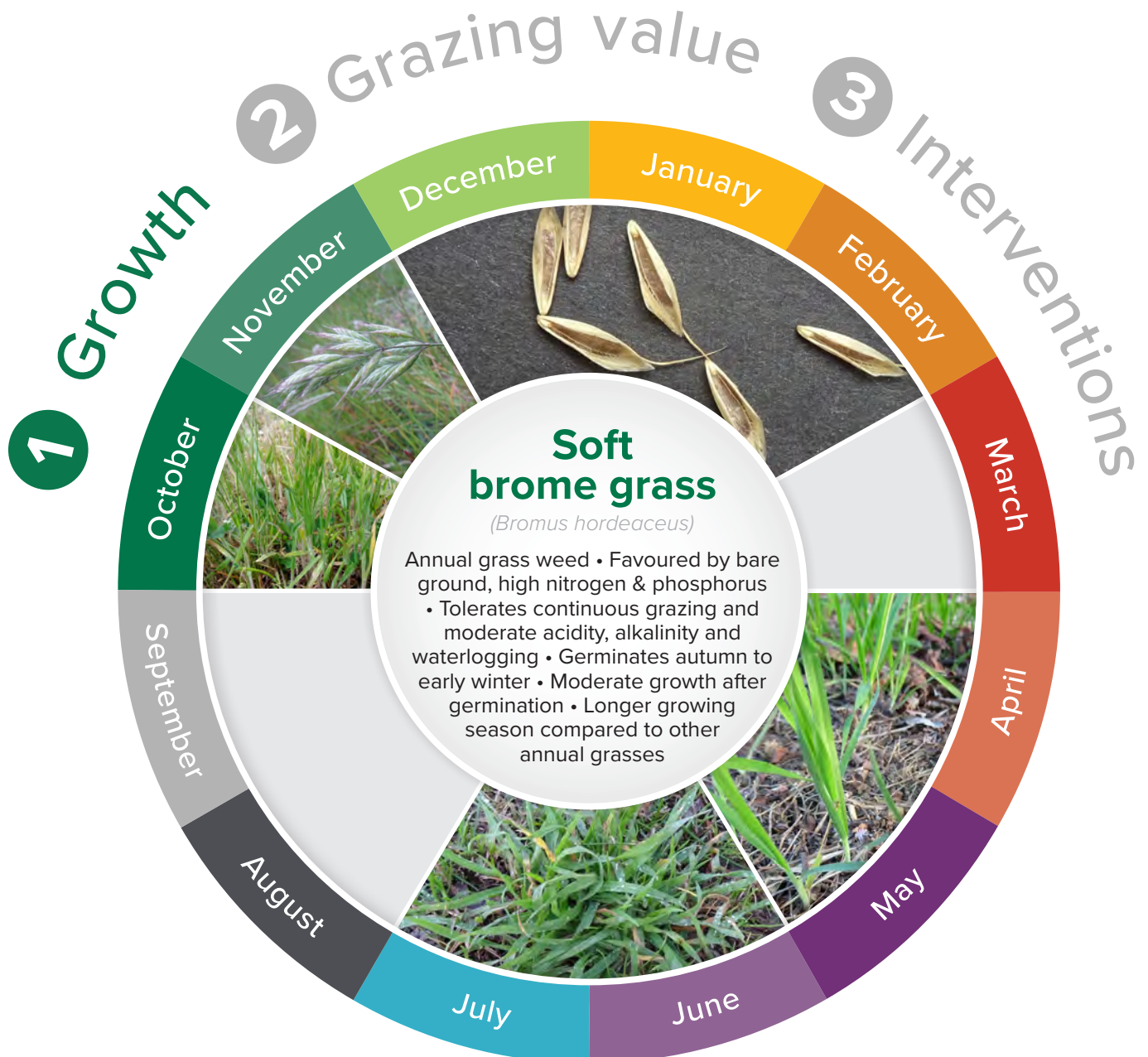
# Soft brome grass

*Bromus hordeaceus*

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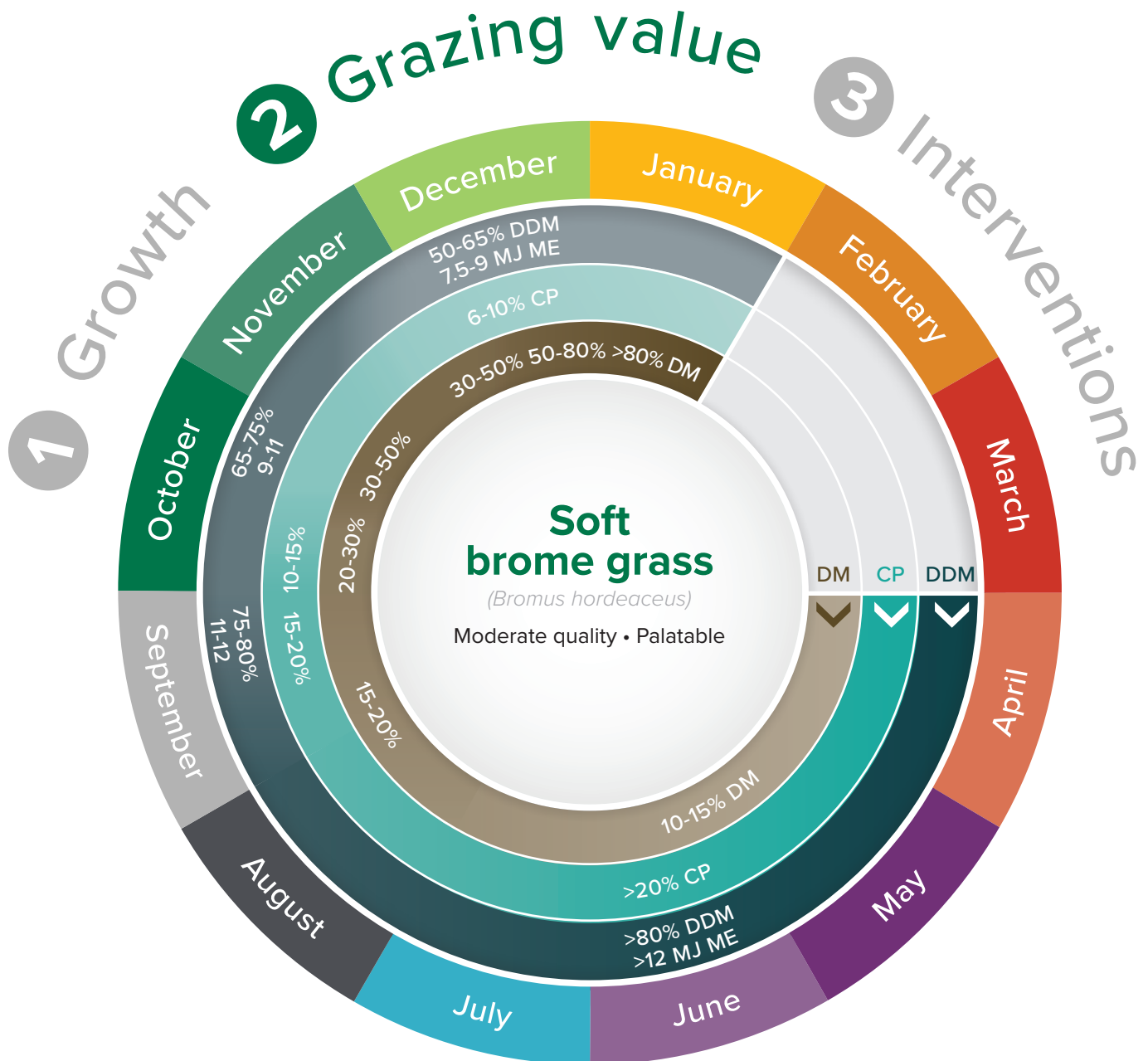
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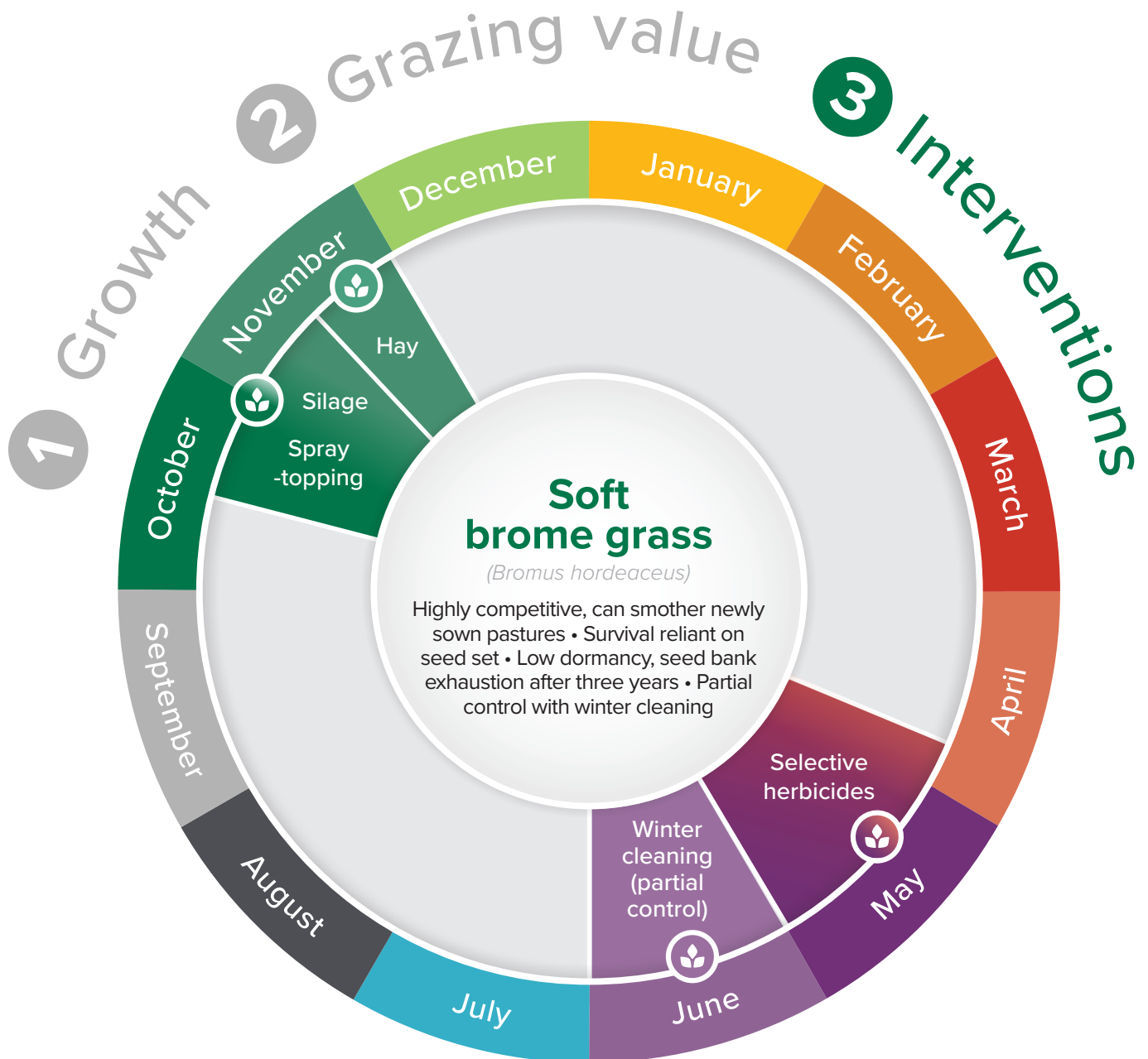
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# Bent grass

*Agrostis spp.*

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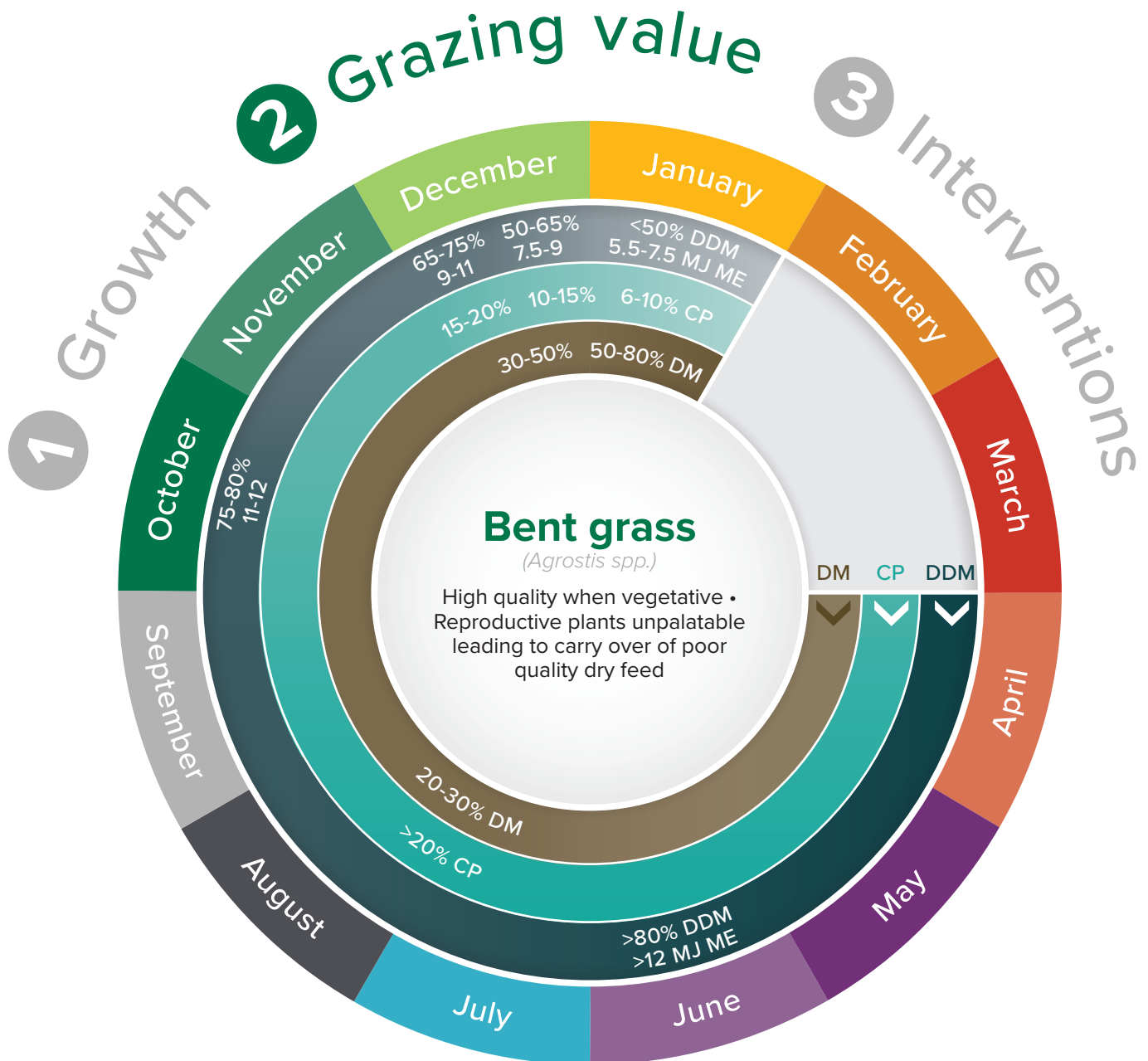
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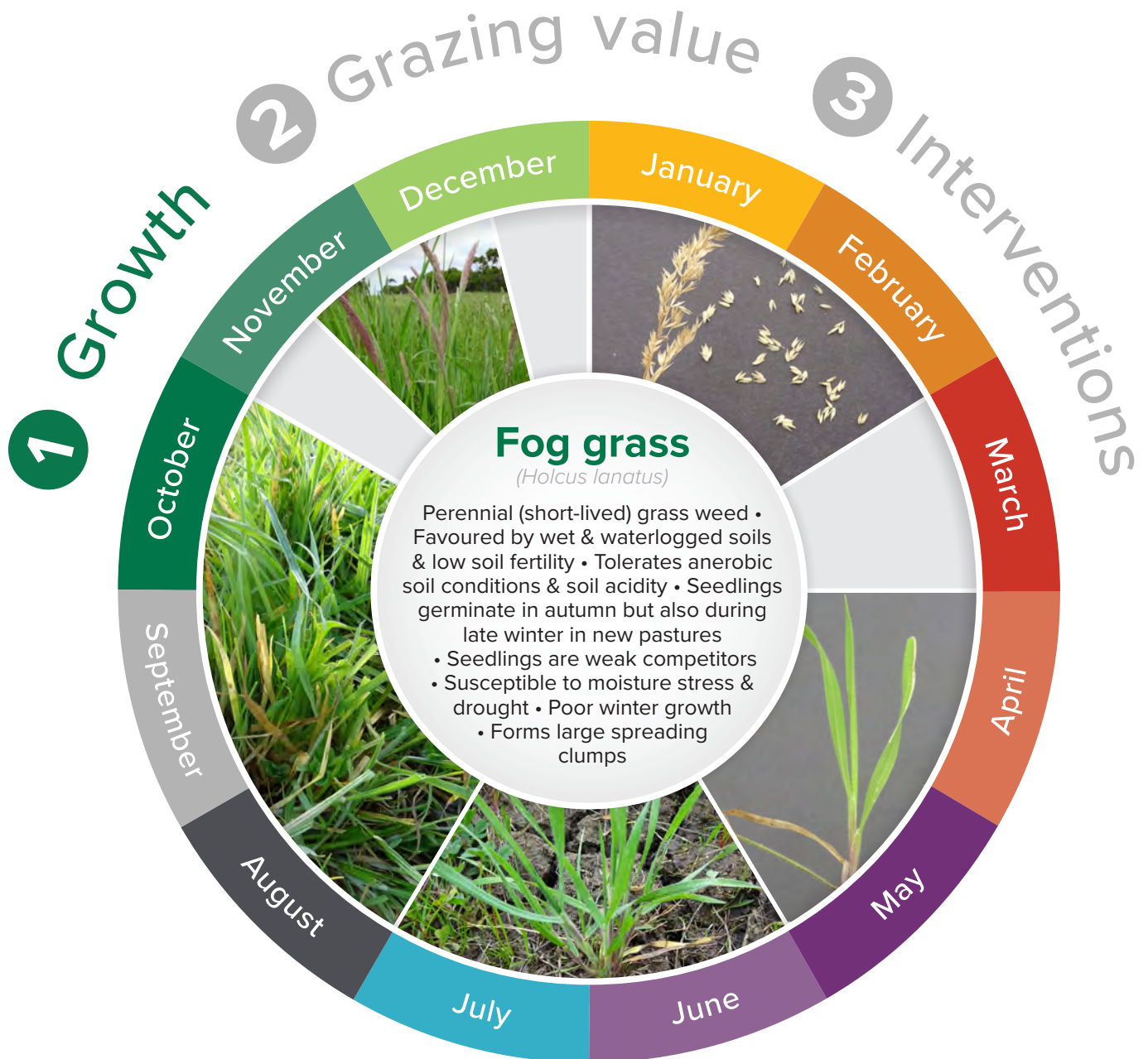
# Fog grass

*Holcus lanatus*

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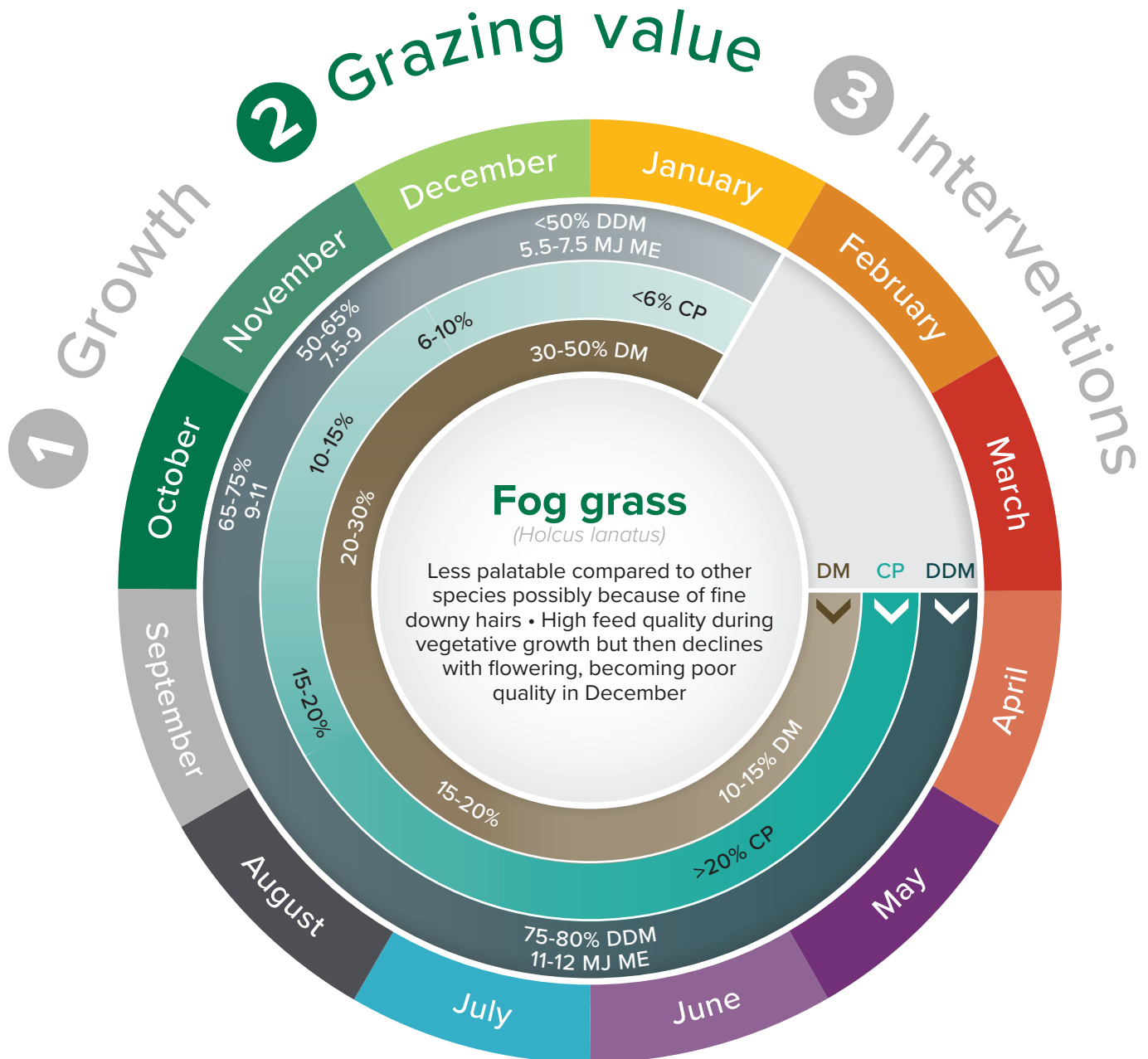
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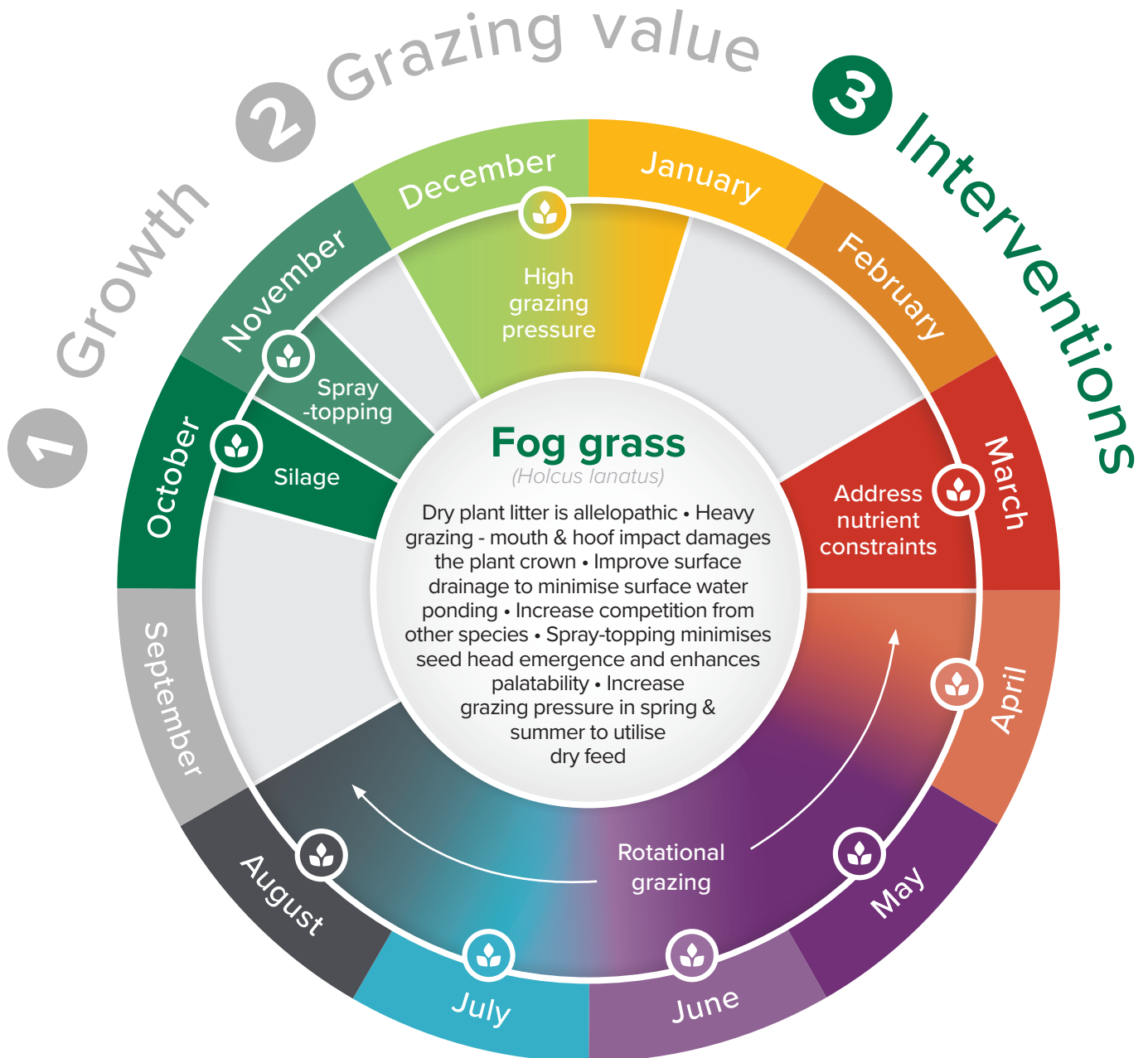
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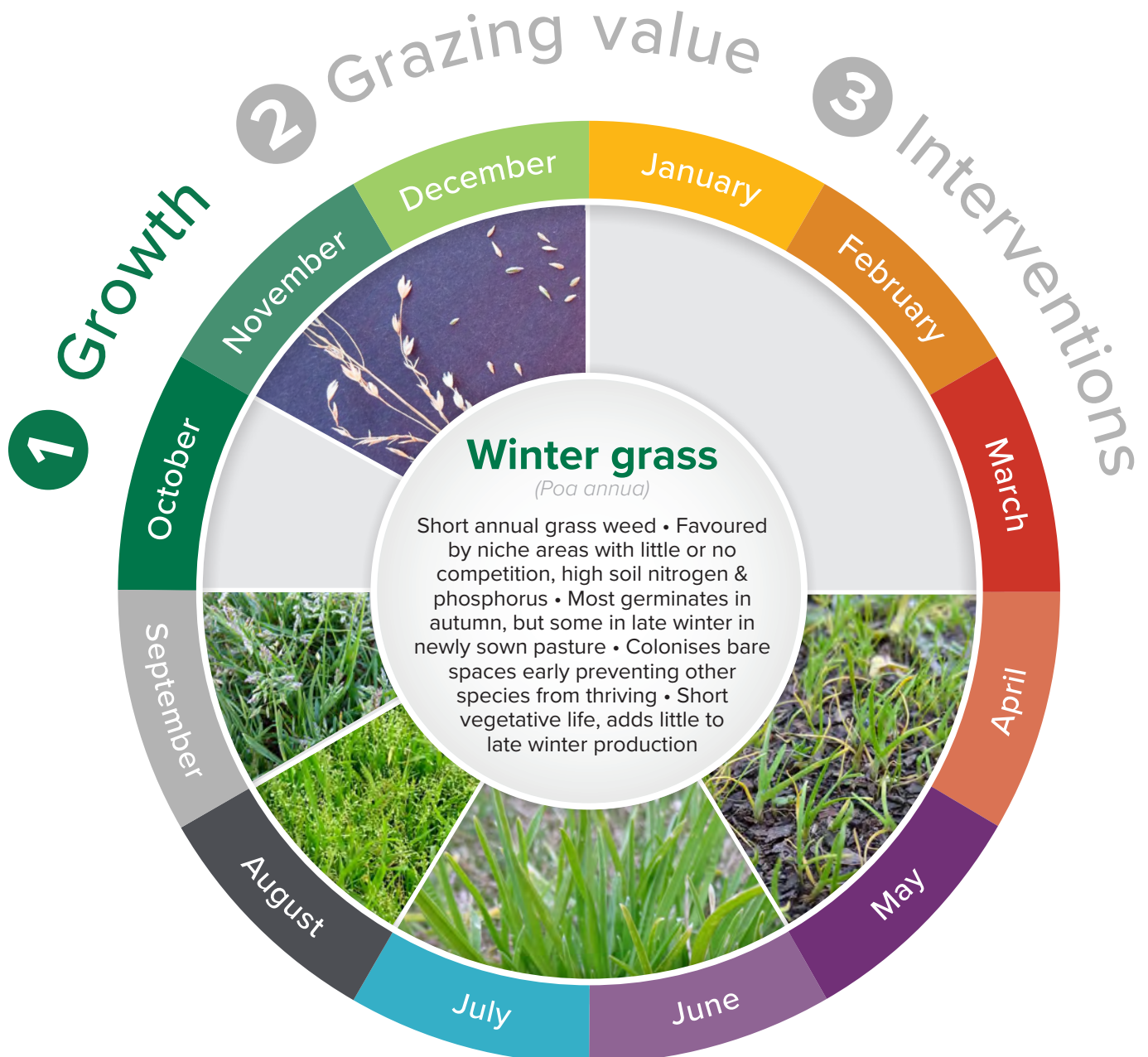
# Winter grass

*Poa annua*

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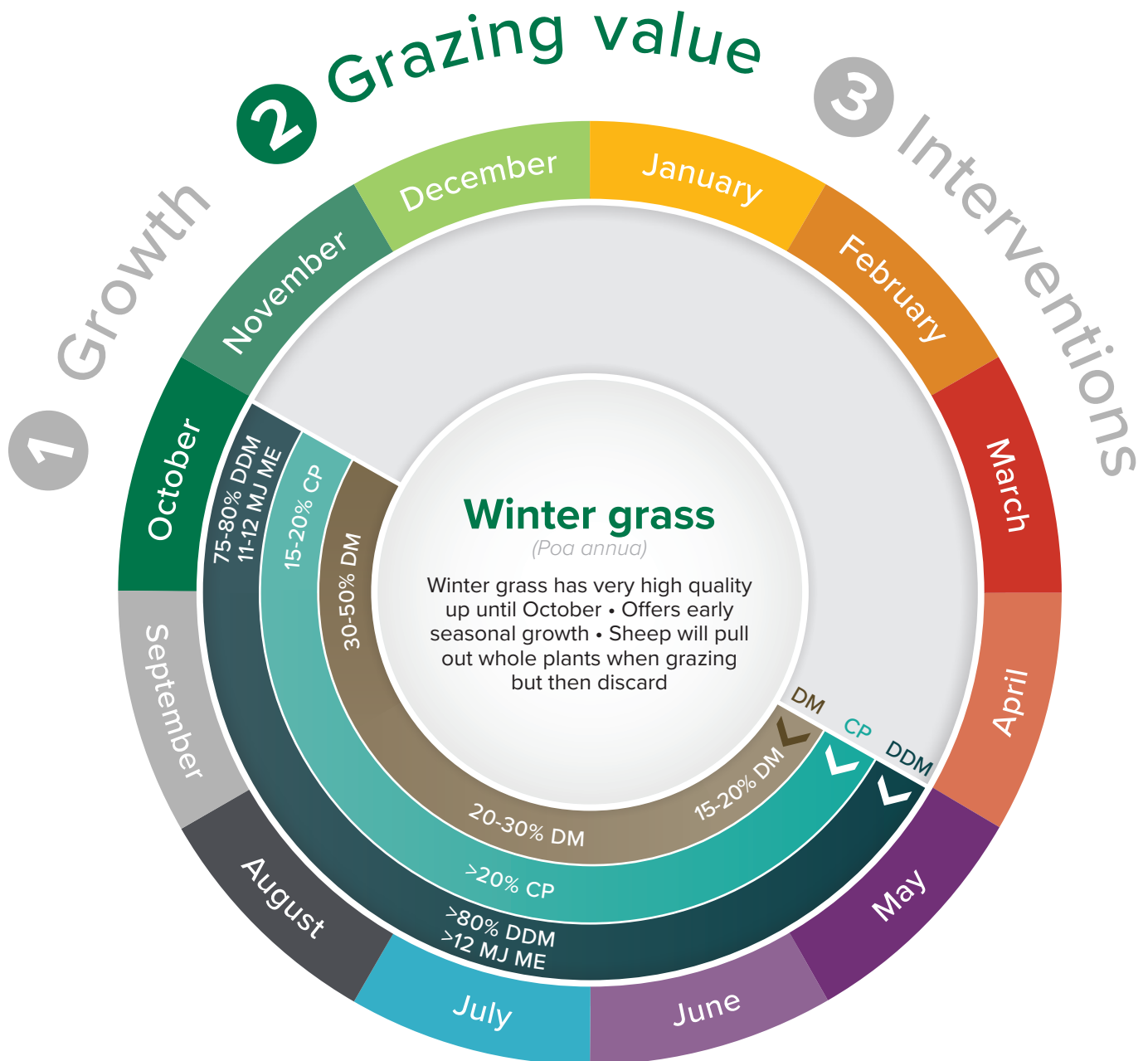
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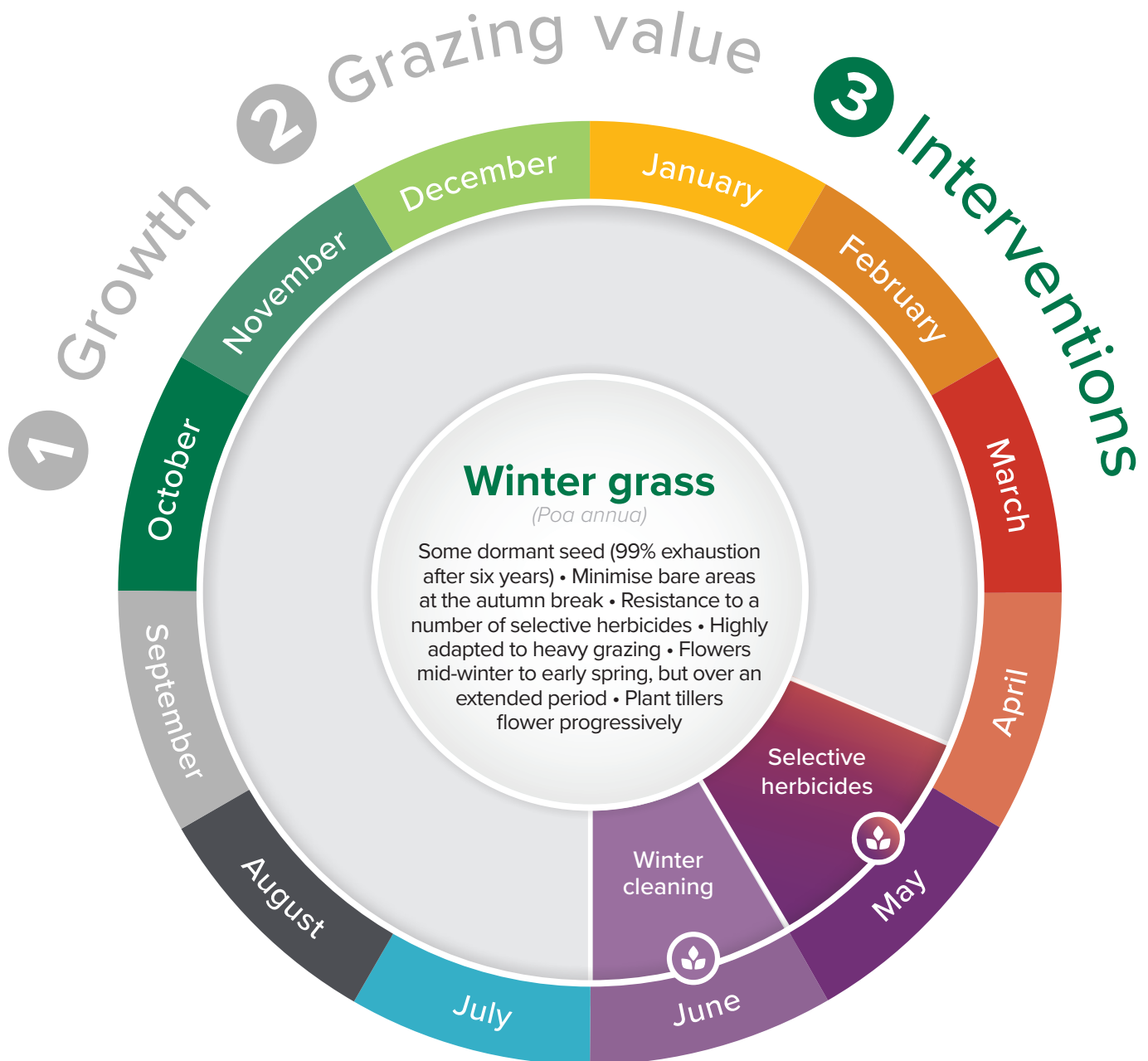
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*Poa annua*

Main menu

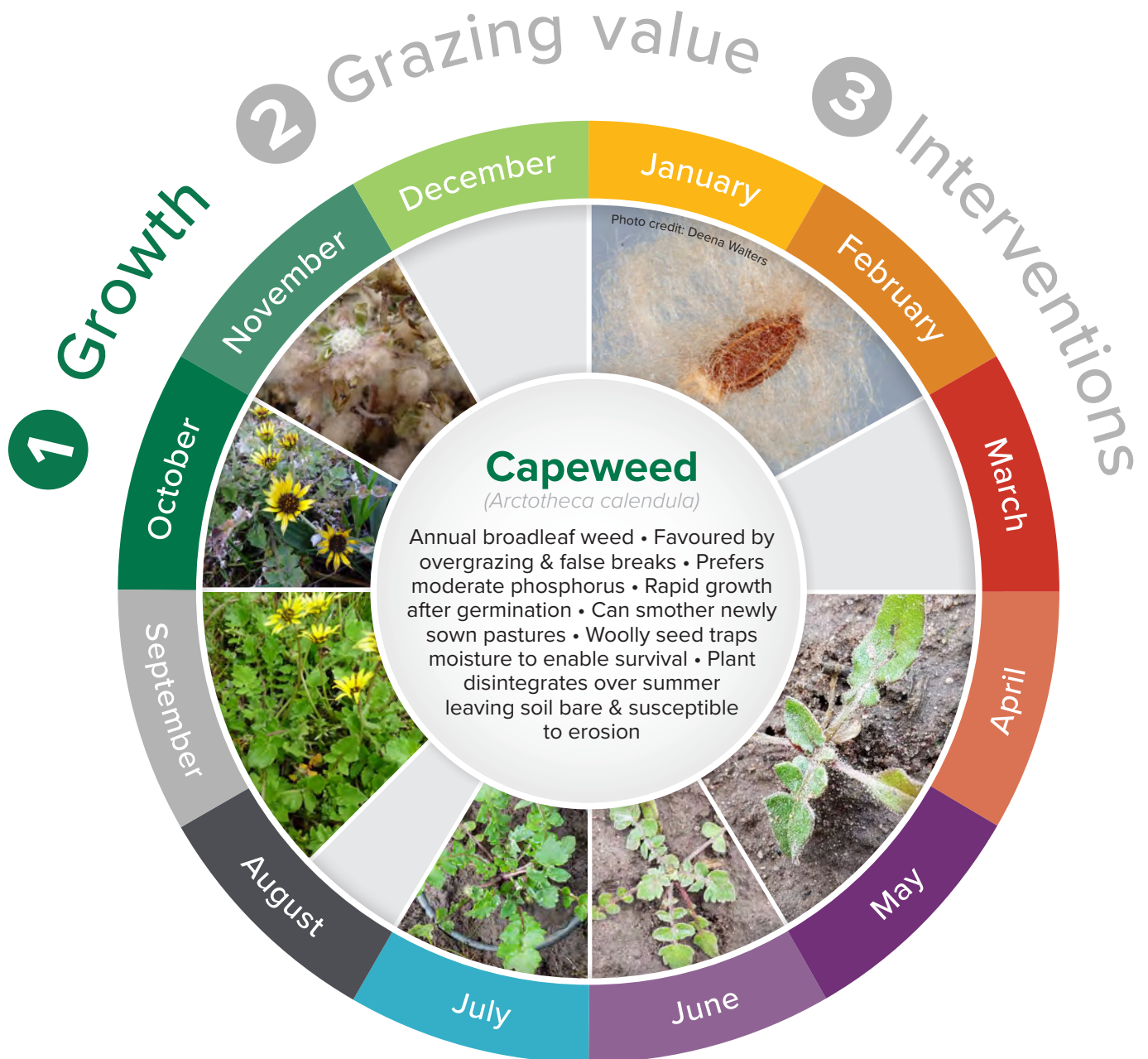
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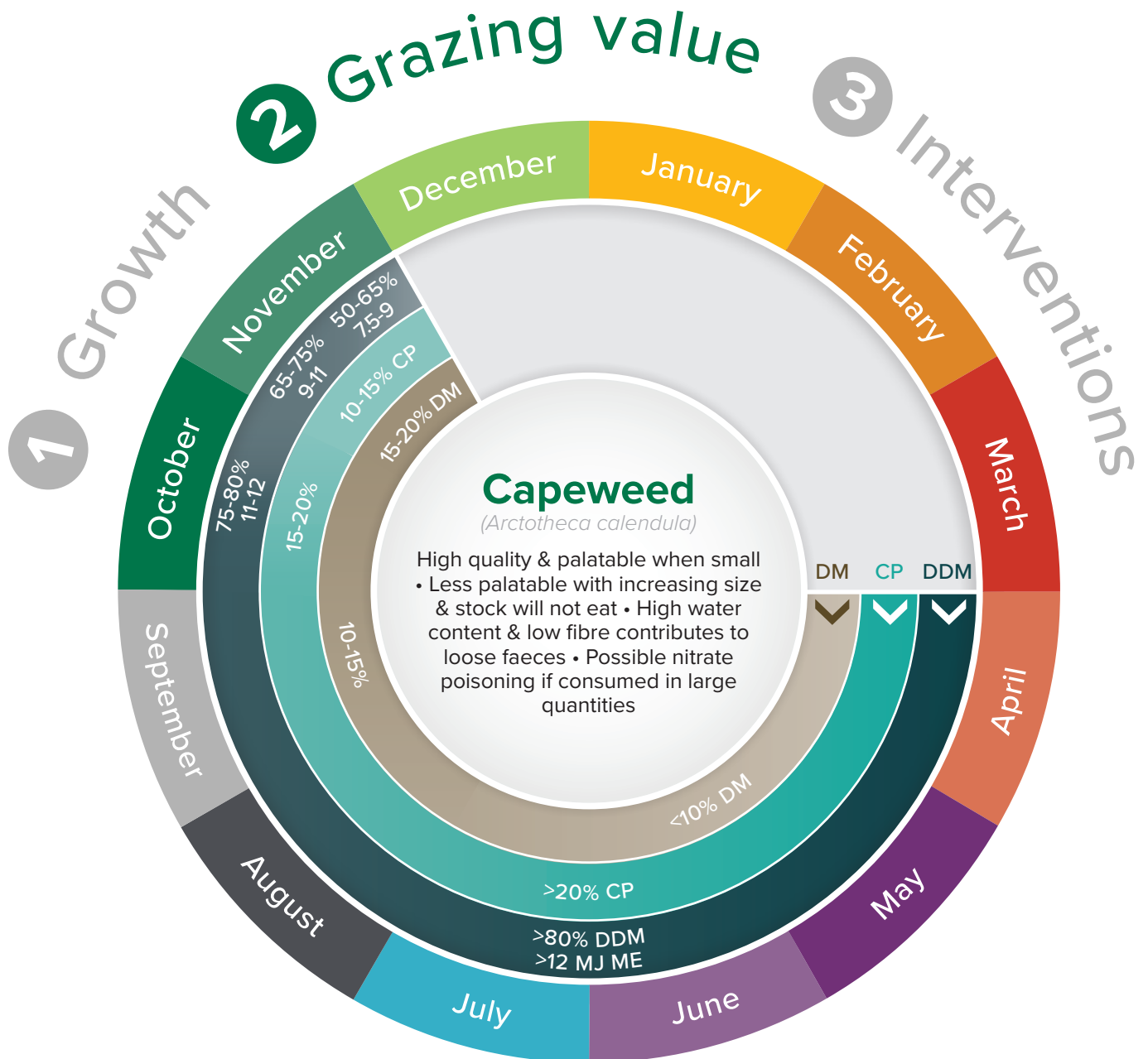
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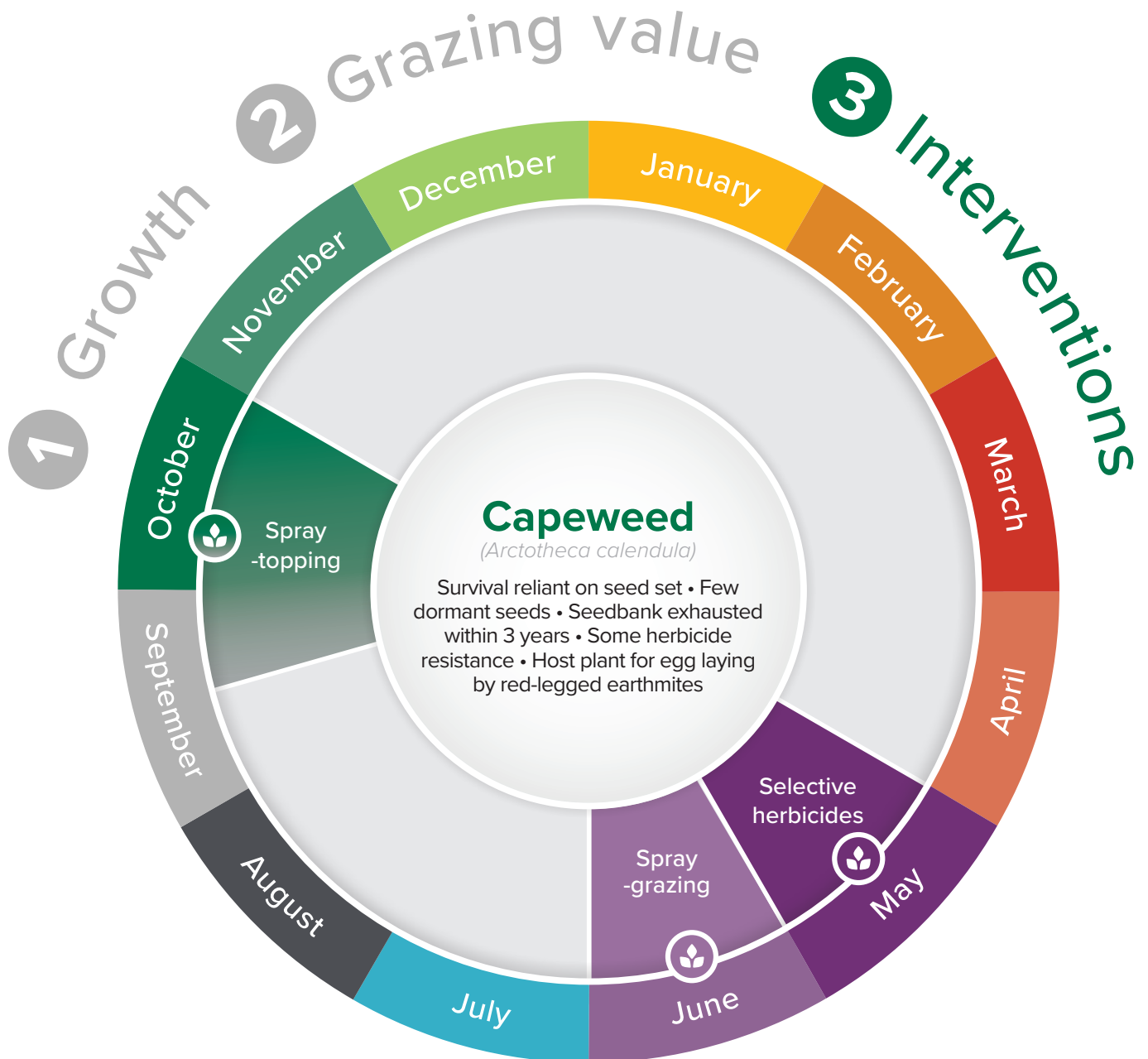
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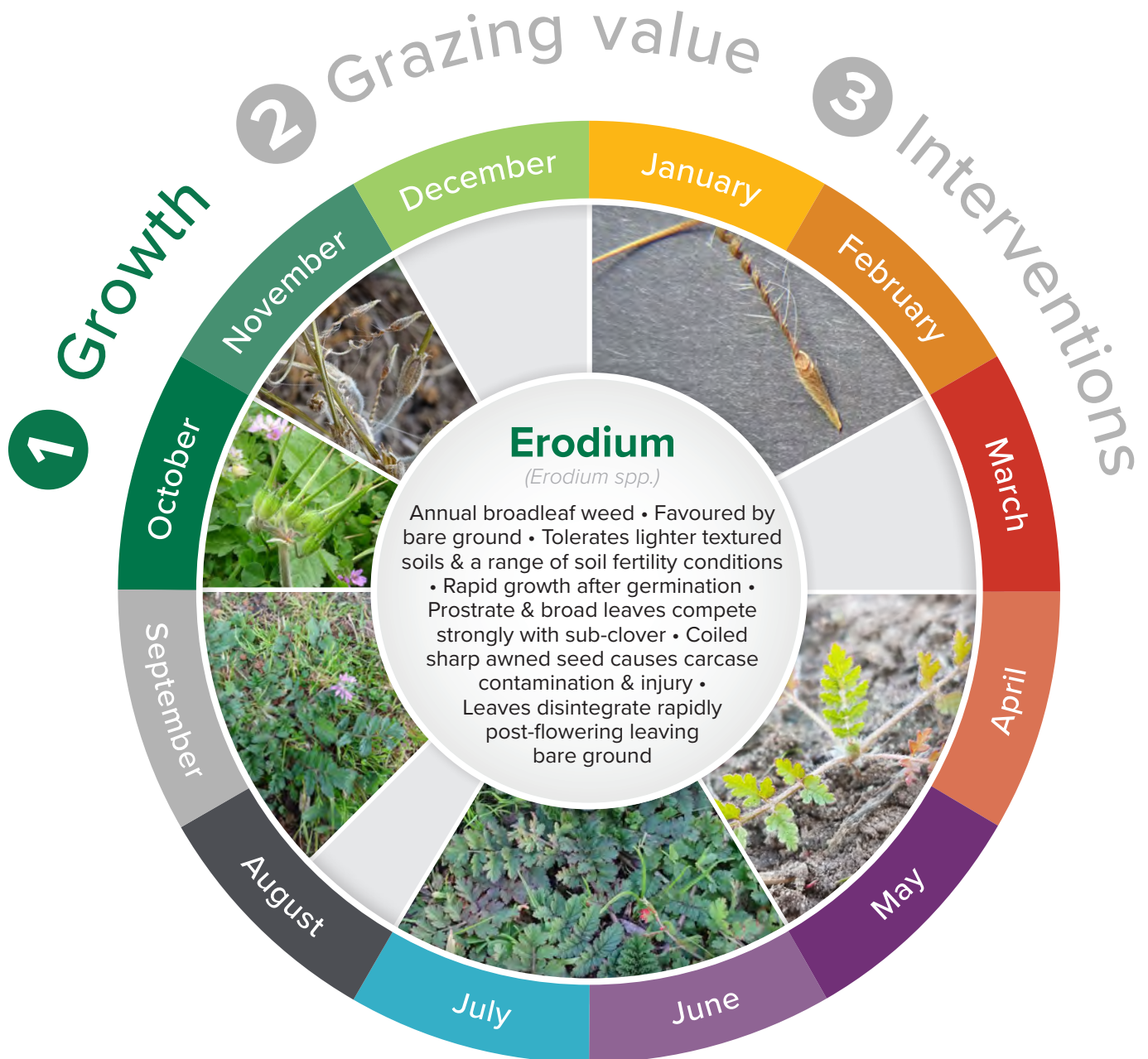
# Erodium

*Erodium spp.*

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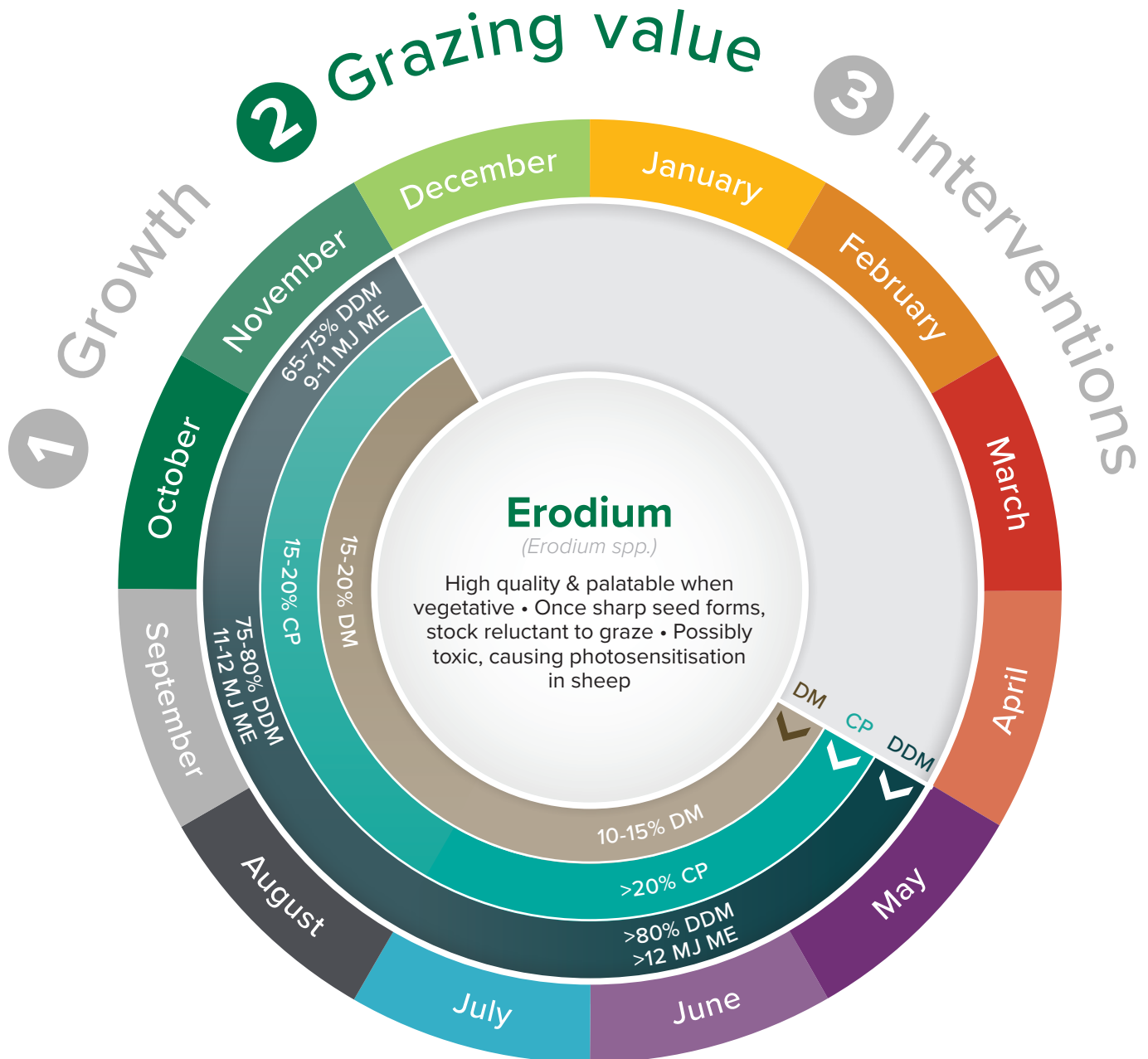
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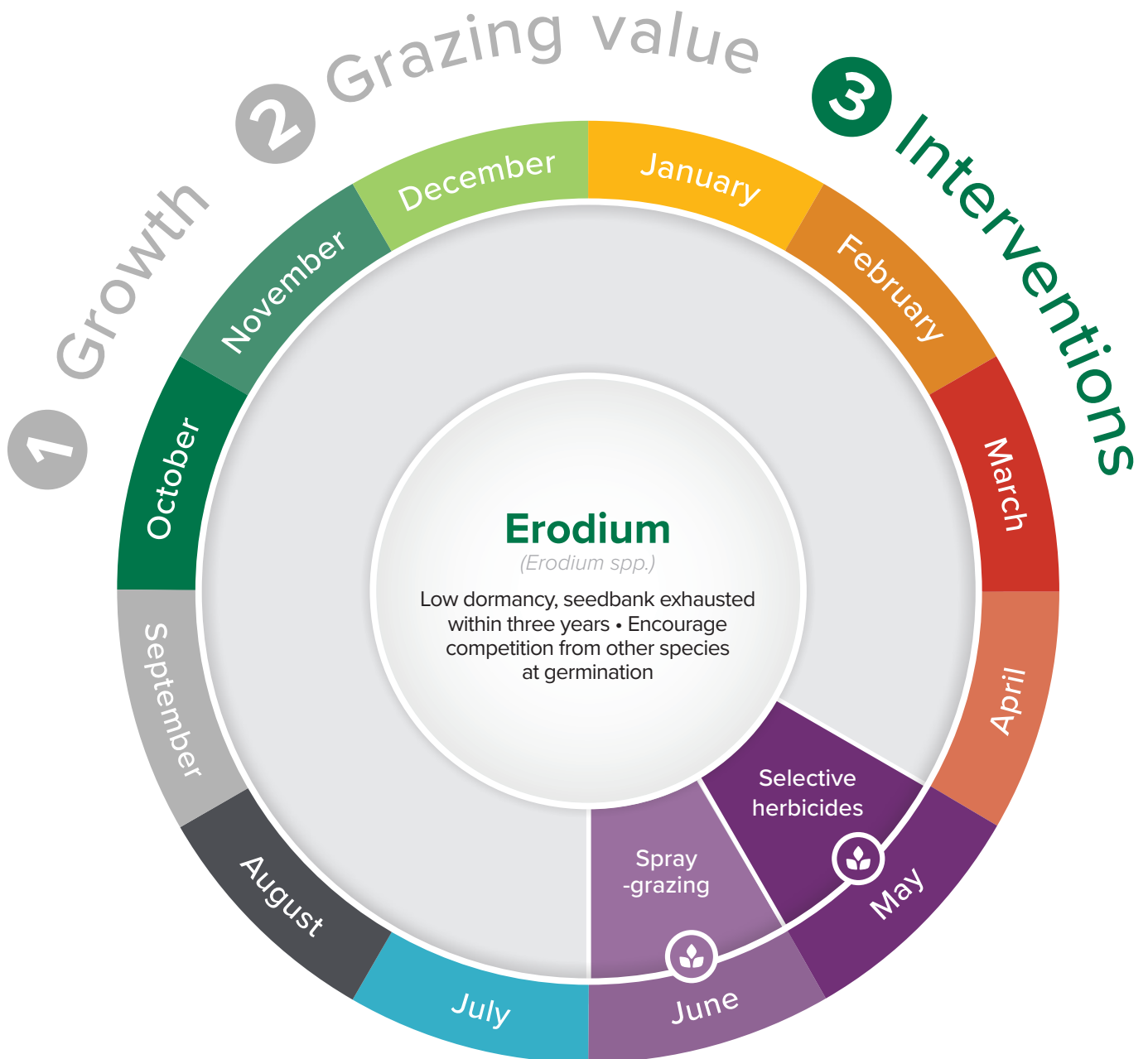
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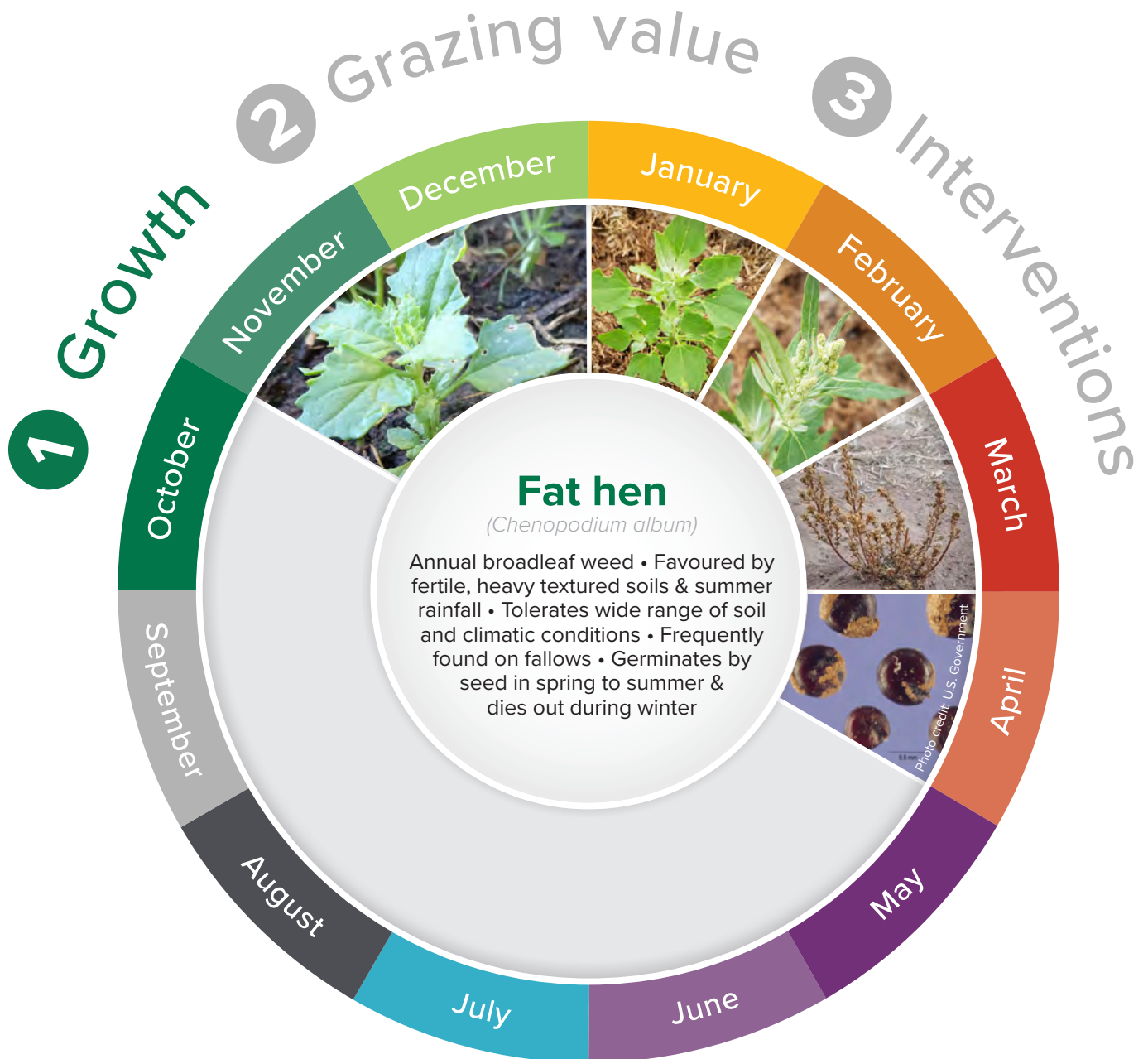
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*Chenopodium album*

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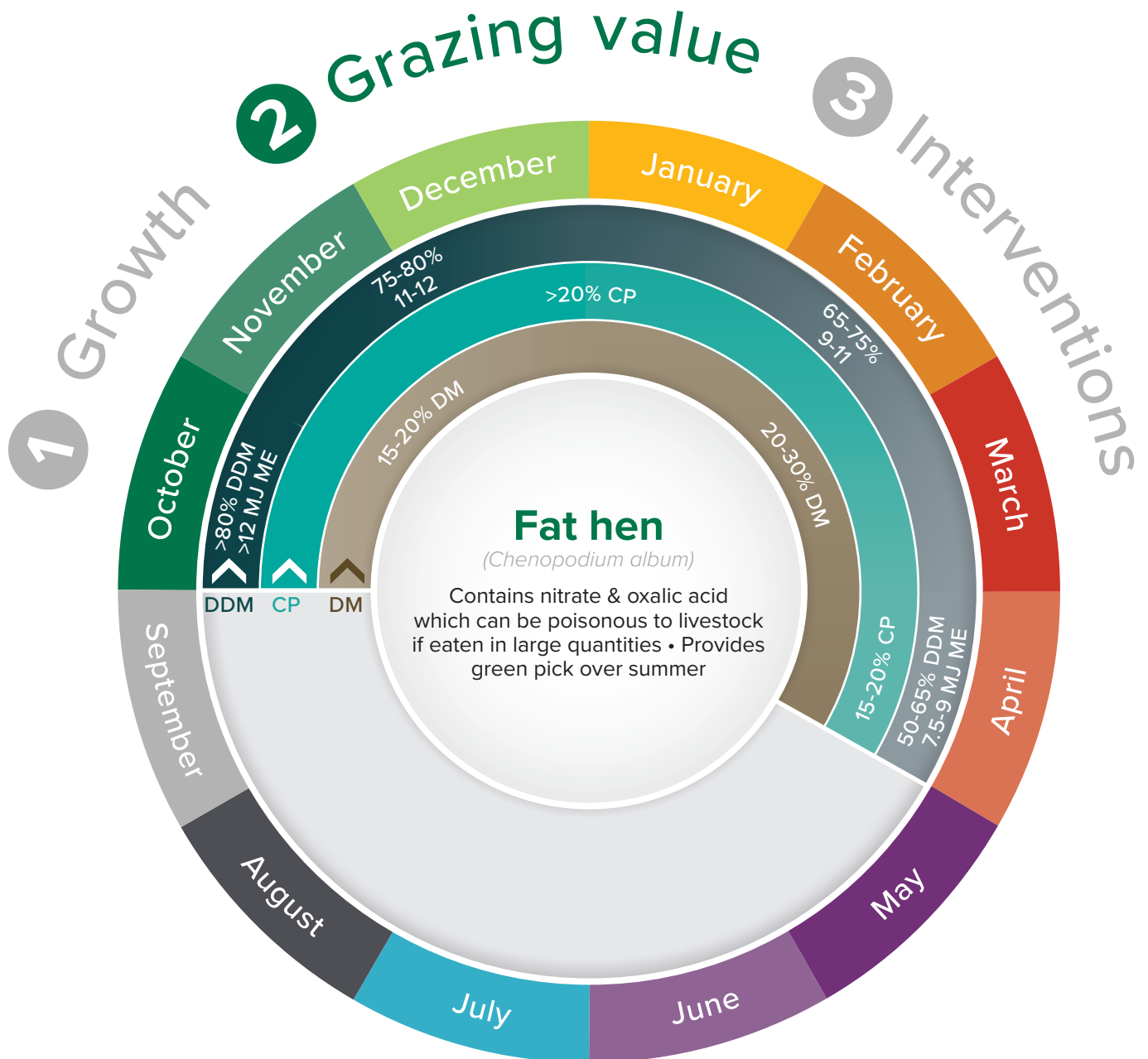
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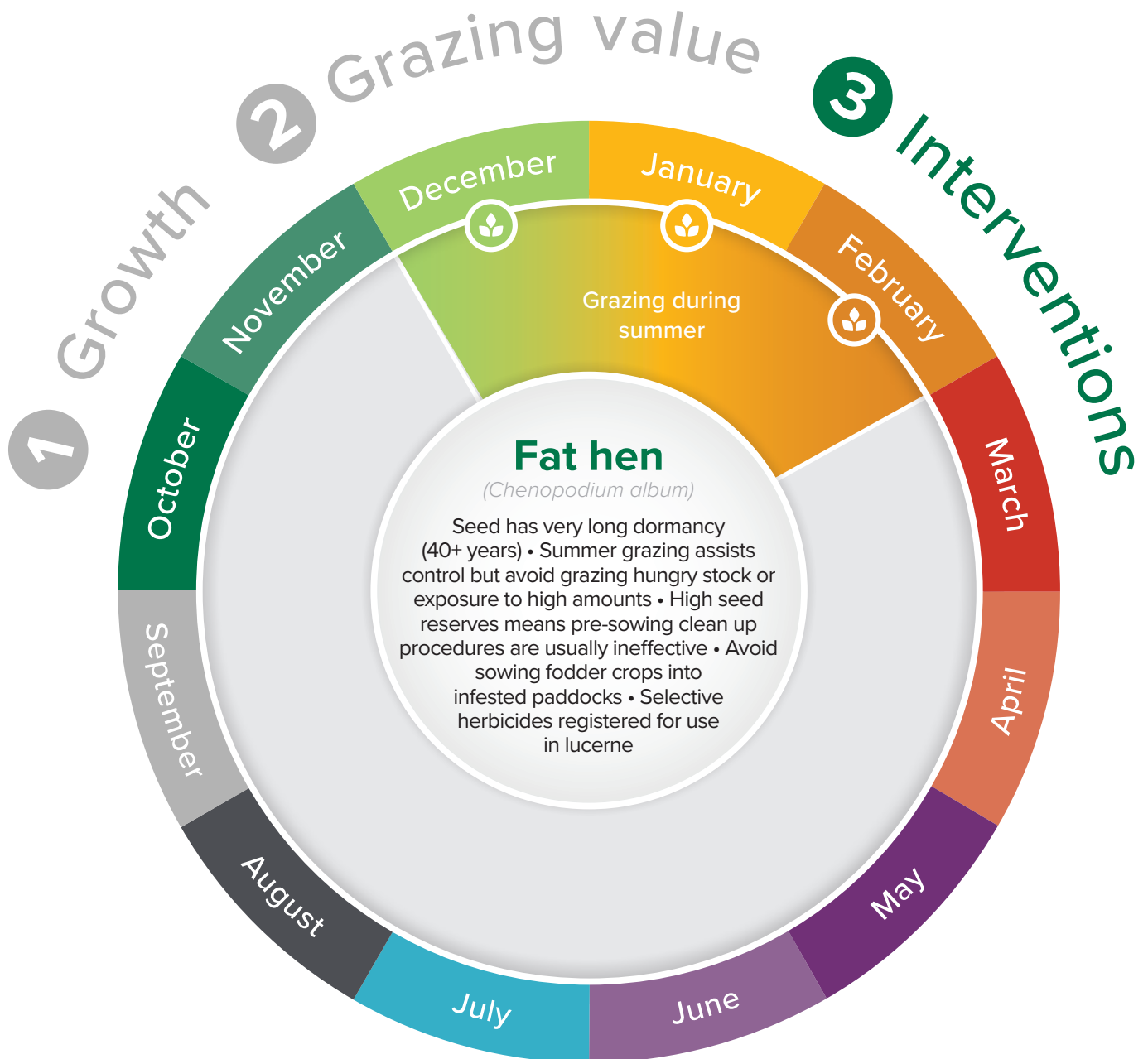
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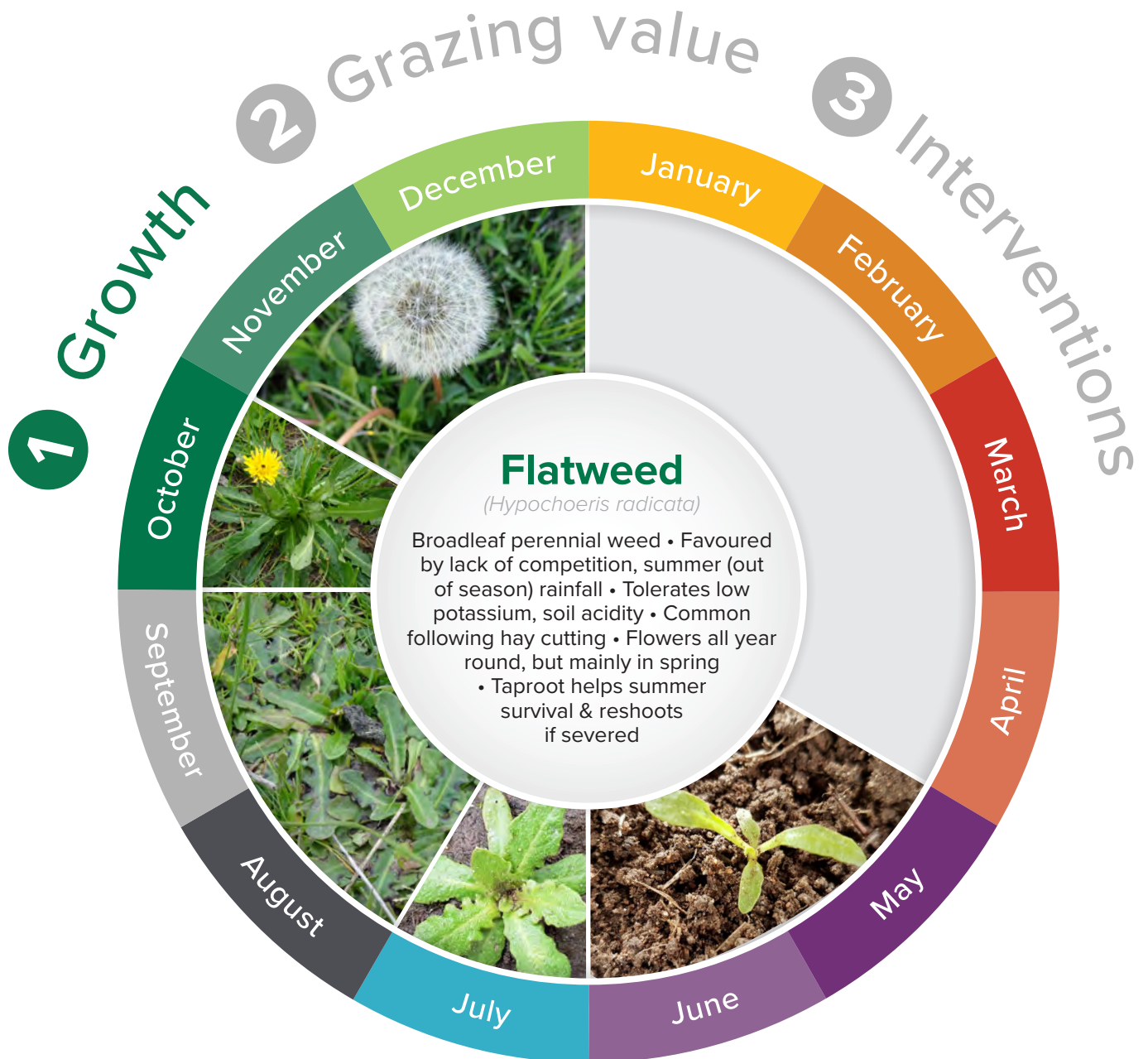
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*Hypochoeris radicata*

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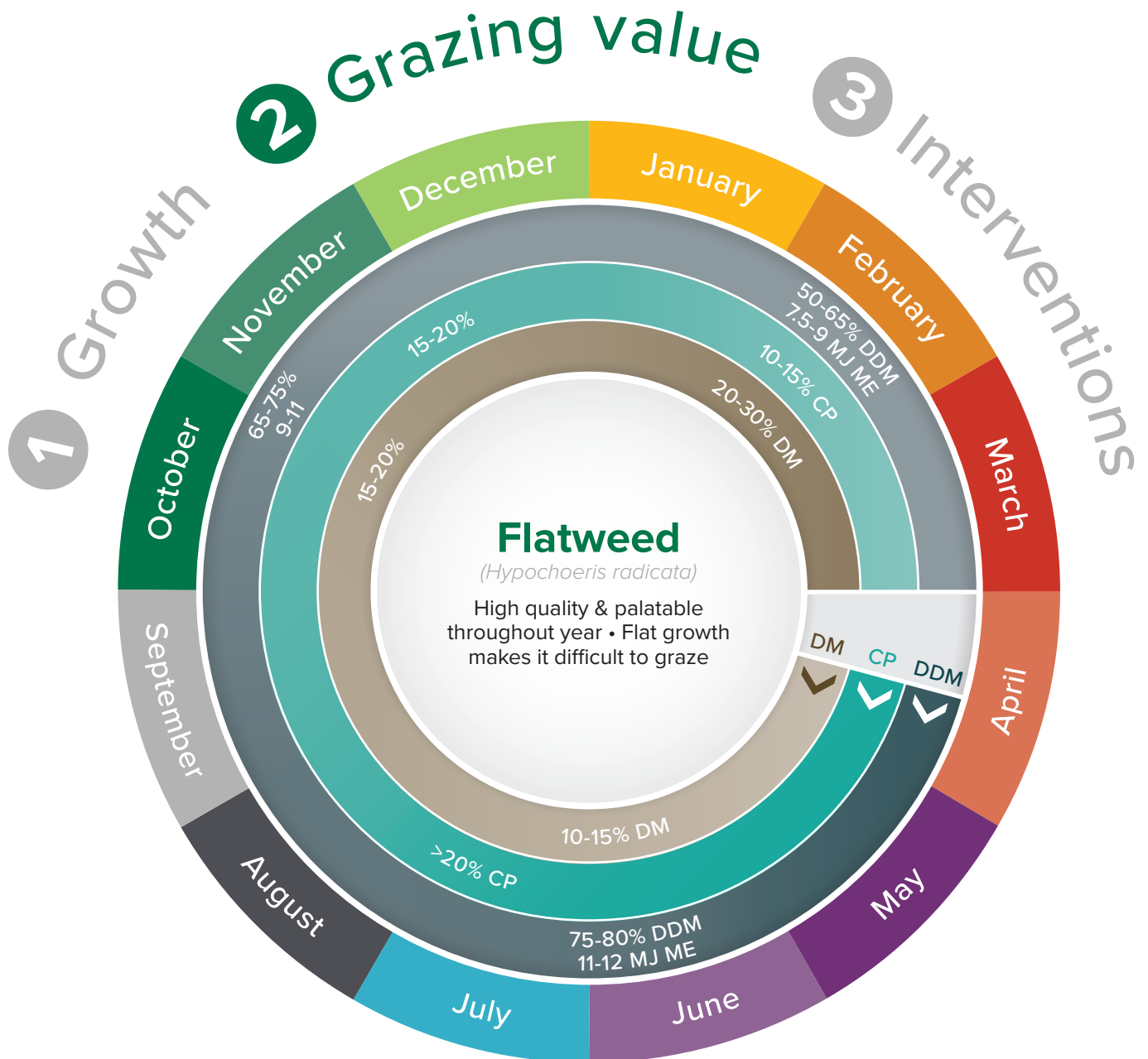
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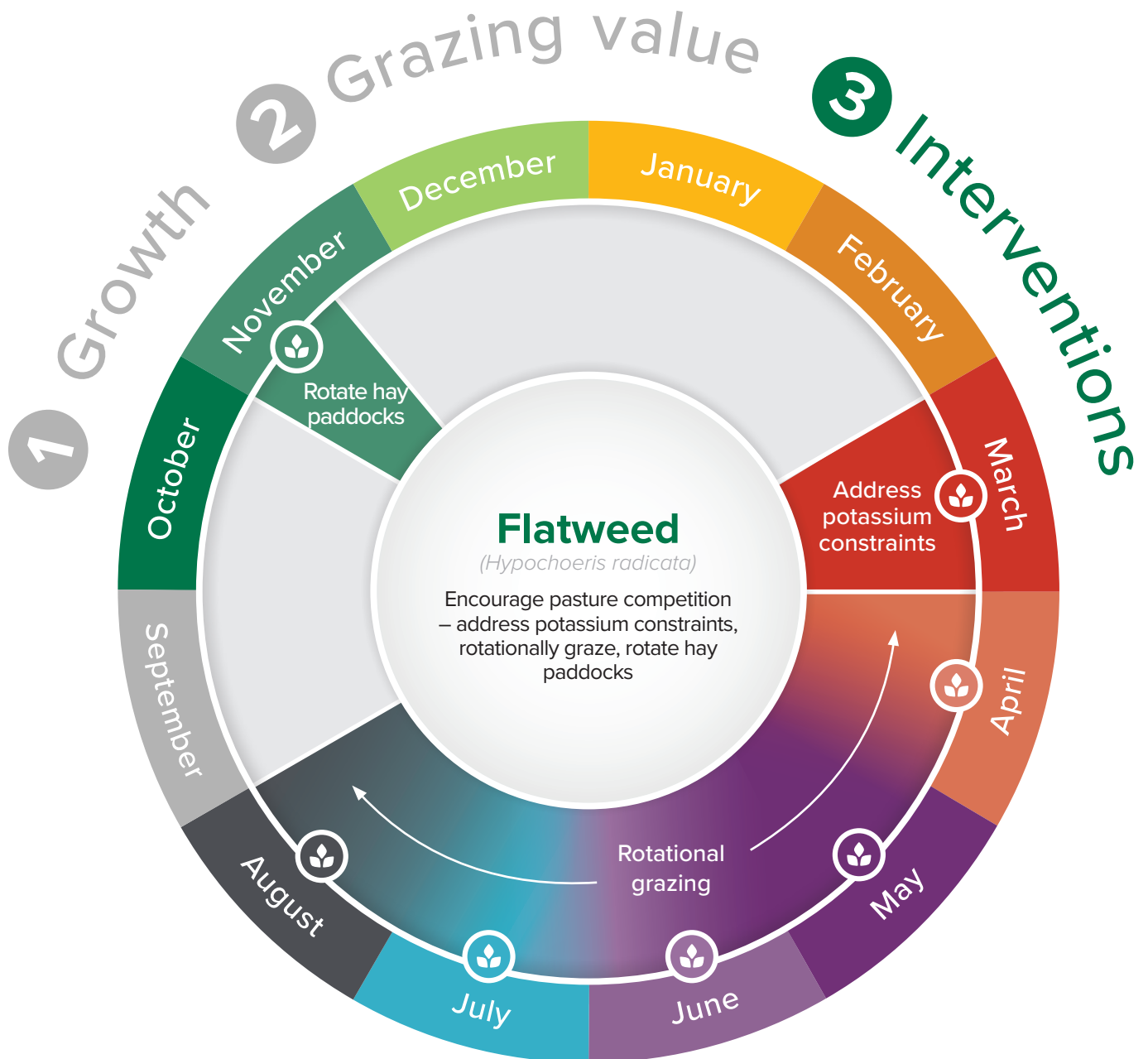
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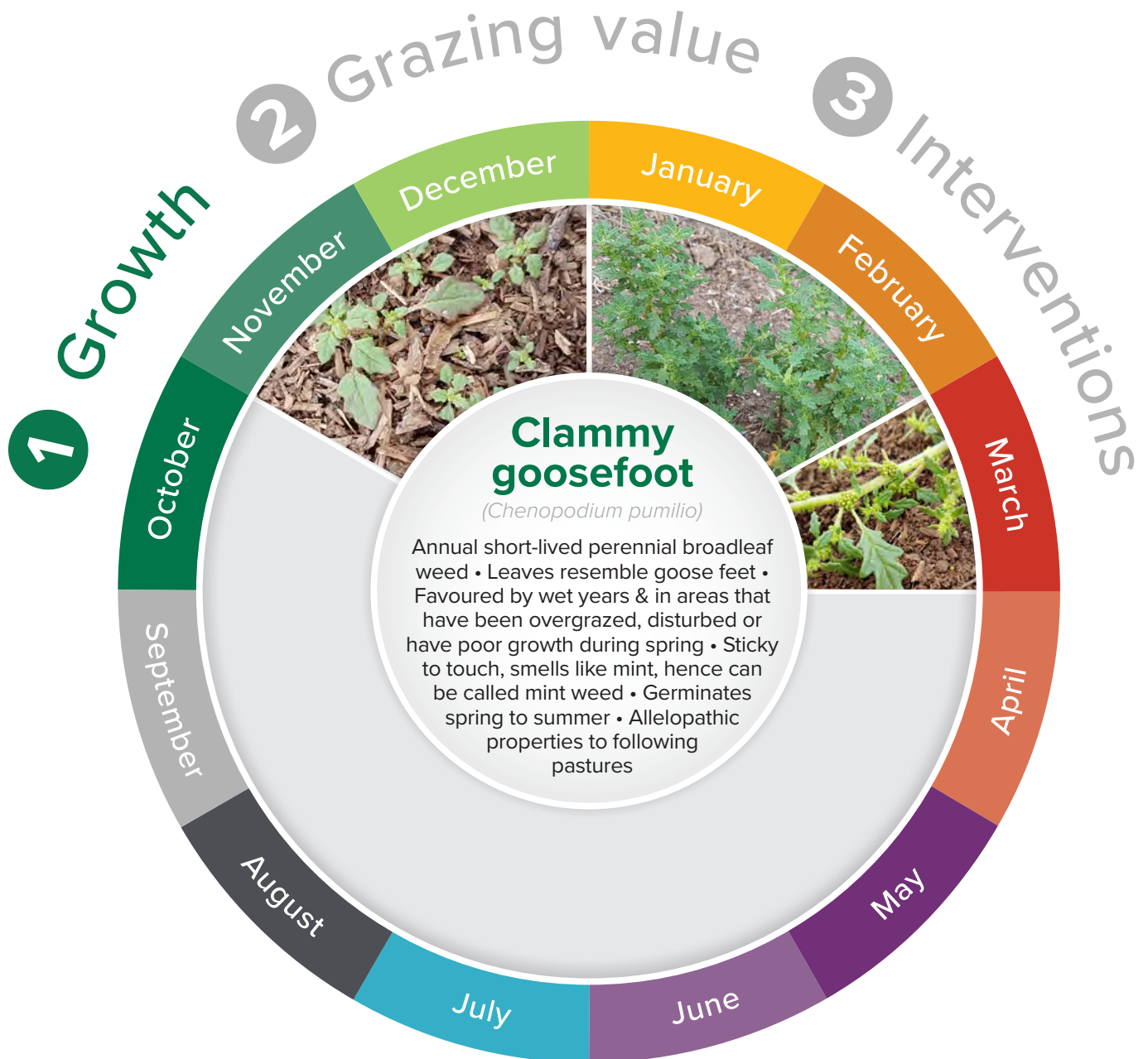
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*Chenopodium pumilio*

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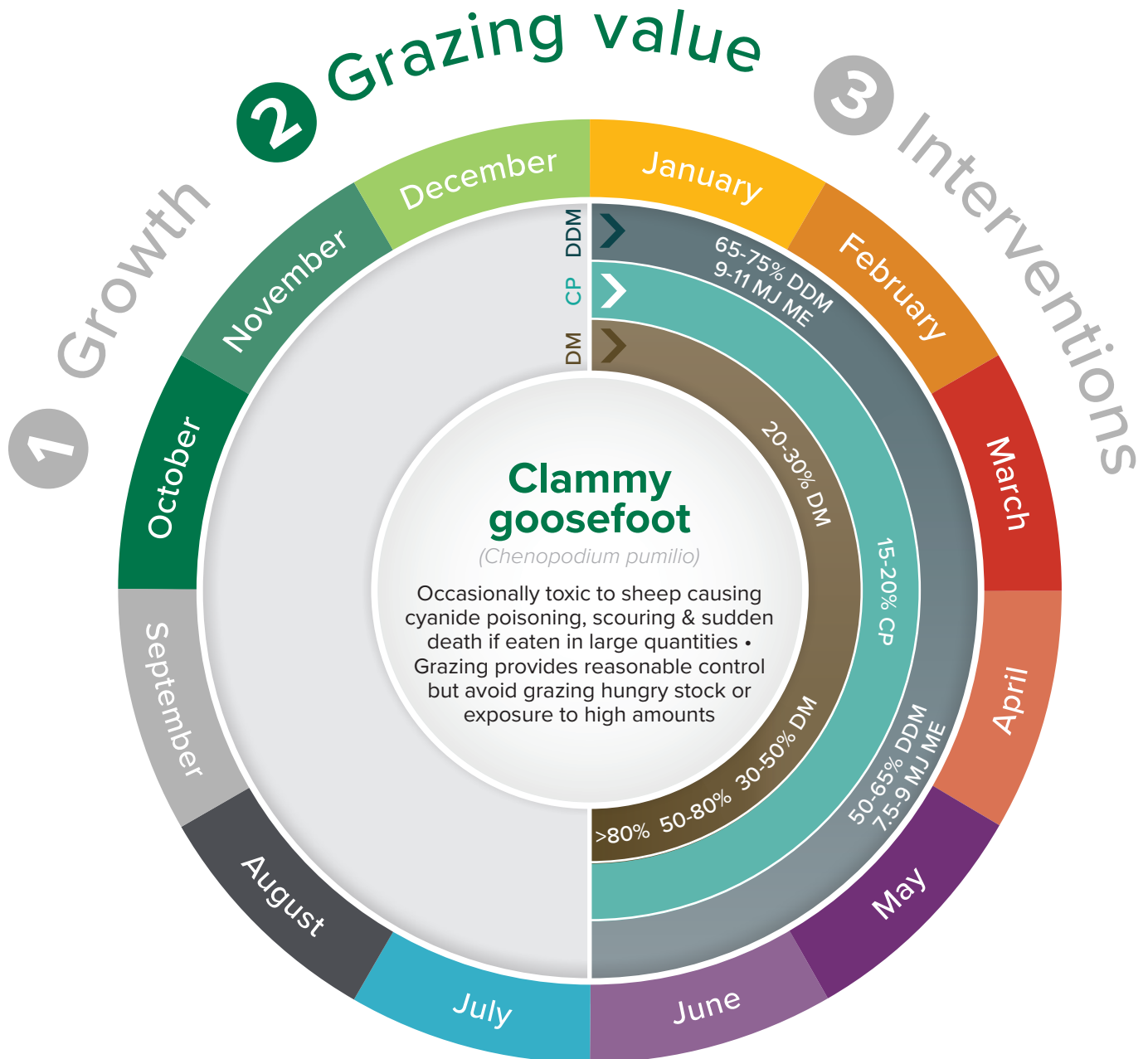
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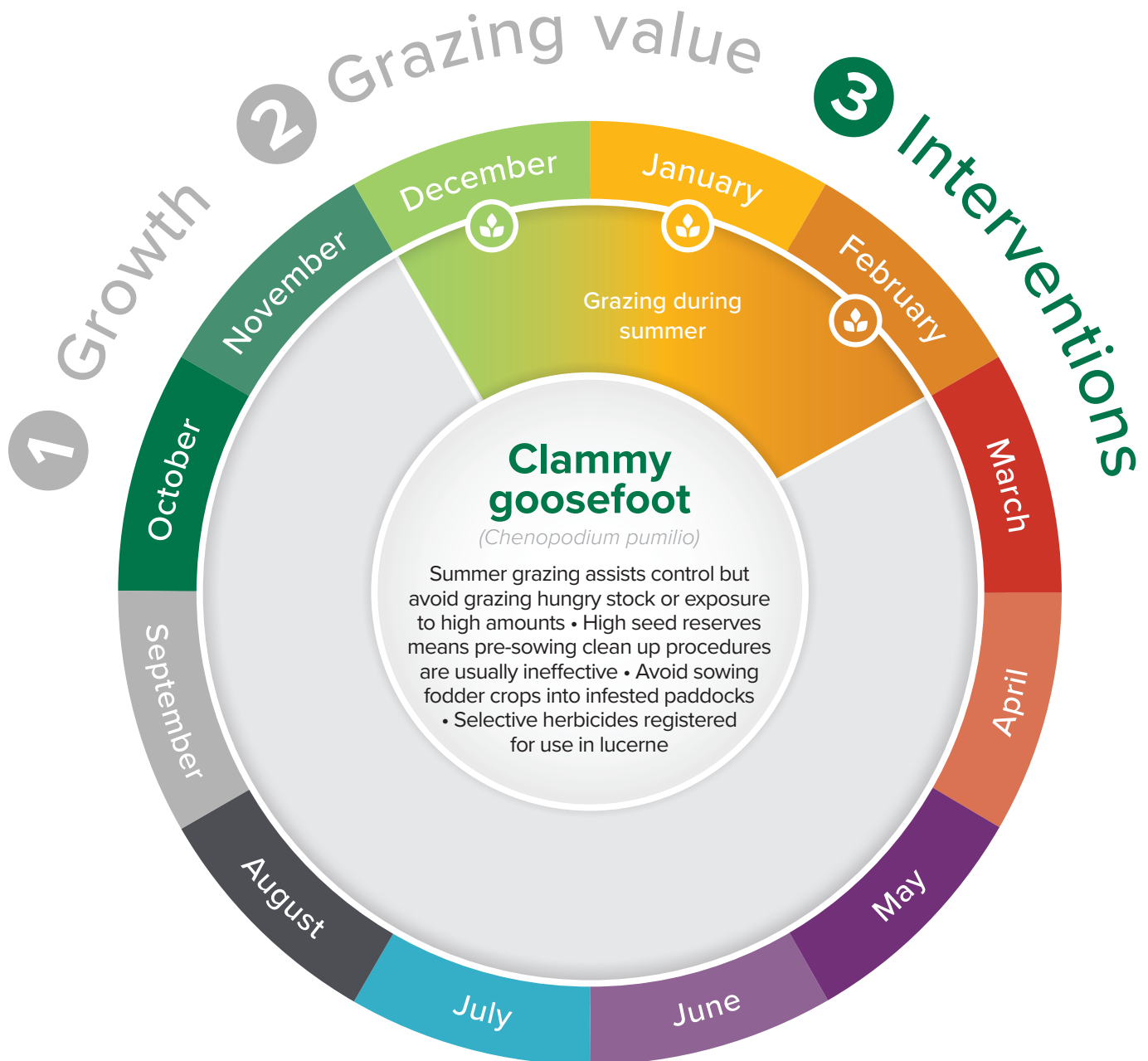
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*Chenopodium pumilio*

Main menu

Each wheel contains three layers: 1. Growth 2. Grazing value and 3. Interventions

To access the information on each layer, simply click on the relevant layer's number below.



# Onion grass

*Romulea rosea*

Main menu

Each wheel contains three layers: 1. Growth 2. Grazing value and 3. Interventions

To access the information on each layer, simply click on the relevant layer's number below.



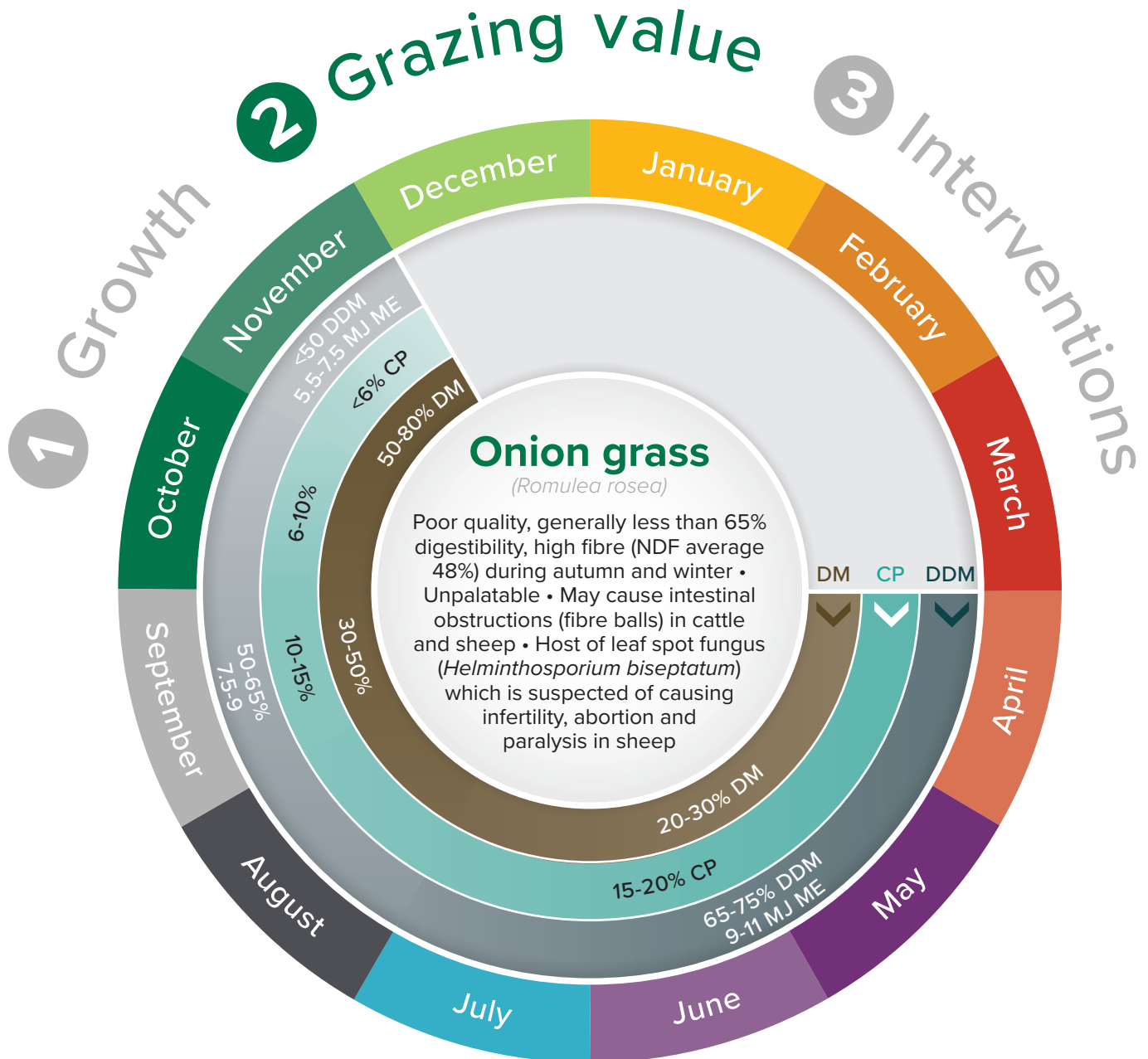
# Onion grass

*Romulea rosea*

Main menu

Each wheel contains three layers: 1. Growth 2. Grazing value and 3. Interventions

To access the information on each layer, simply click on the relevant layer's number below.



**DM** • Dry matter

**CP** • Crude protein

**DDM & ME** • Digestibility and metabolisable energy

About feed quality information

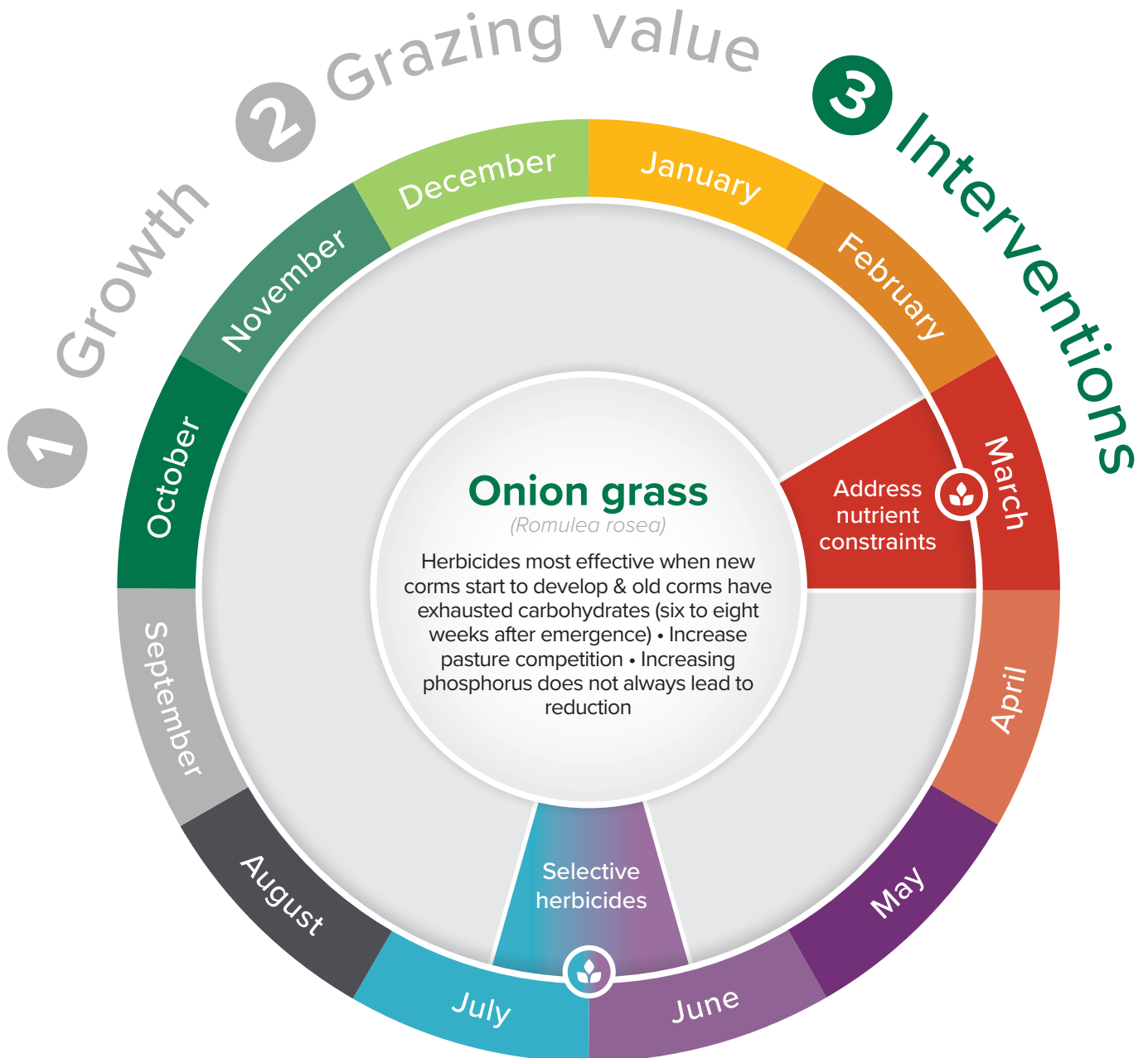
# Onion grass

*Romulea rosea*

Main menu

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# Sow thistle

*Sonchus spp.*

Main menu

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To access the information on each layer, simply click on the relevant layer's number below.



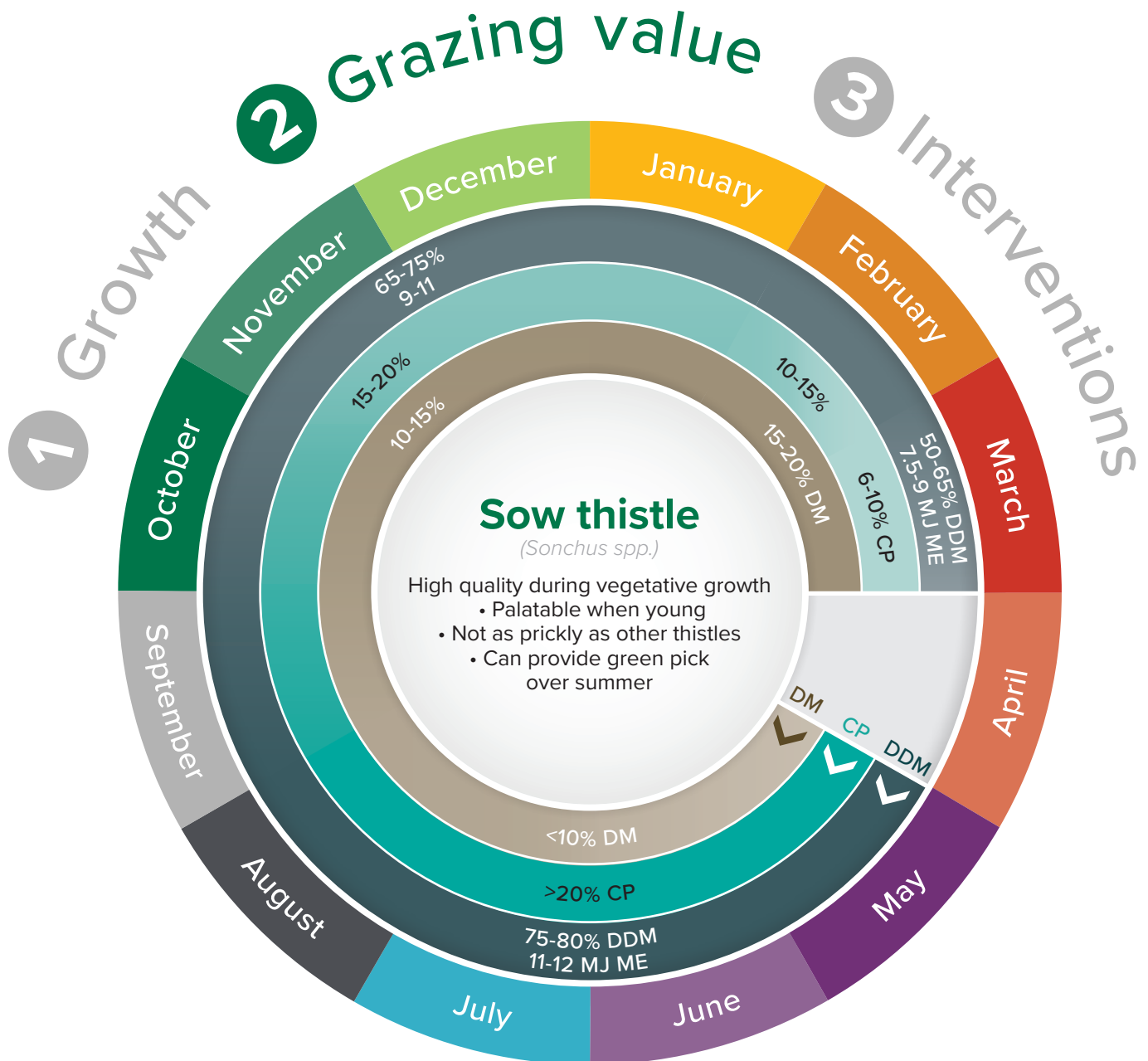
# Sow thistle

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About feed quality information



# Sow thistle

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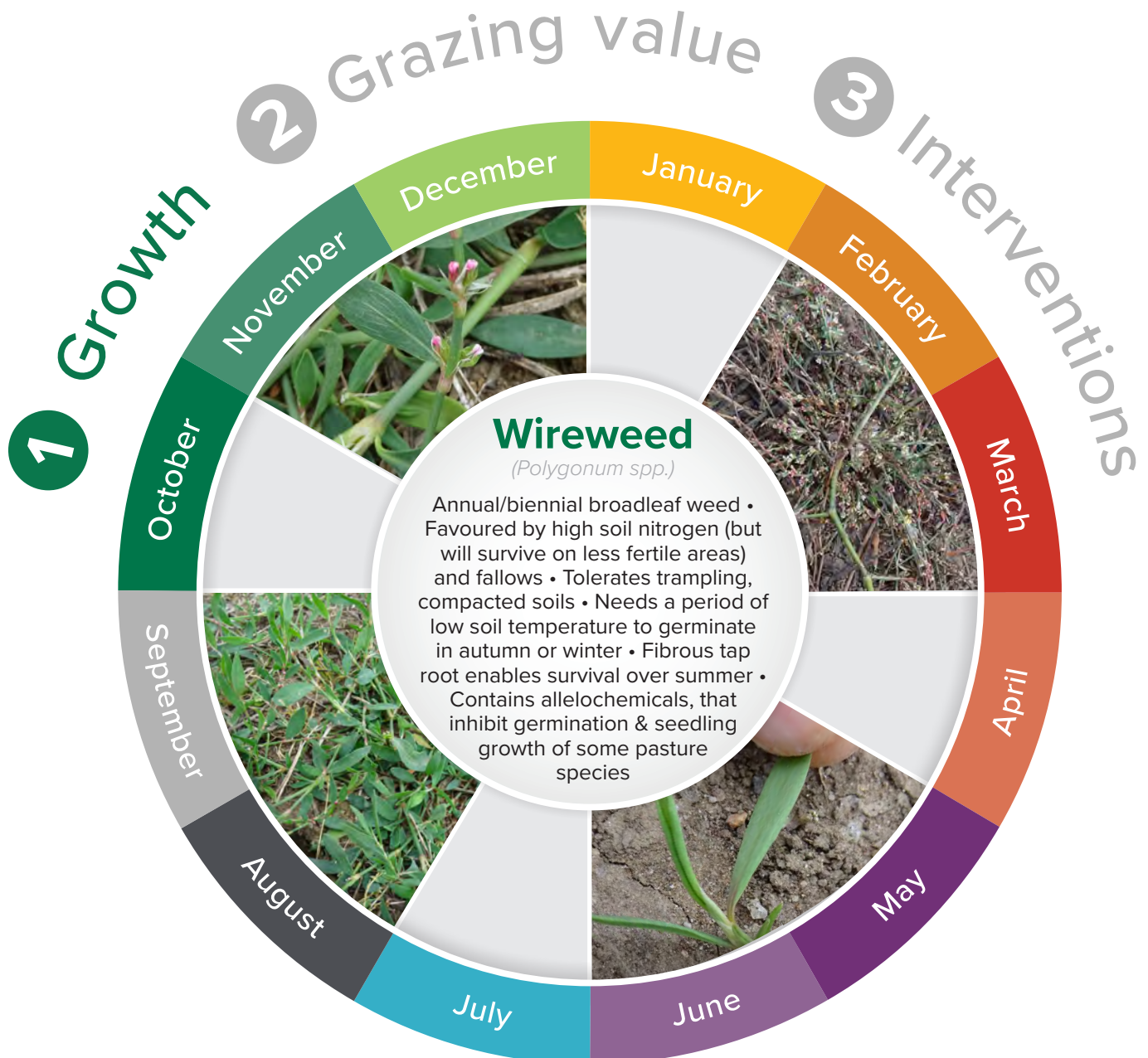
# Wireweed / hogweed

*Polygonum spp.*

Main menu

Each wheel contains three layers: 1. Growth 2. Grazing value and 3. Interventions

To access the information on each layer, simply click on the relevant layer's number below.



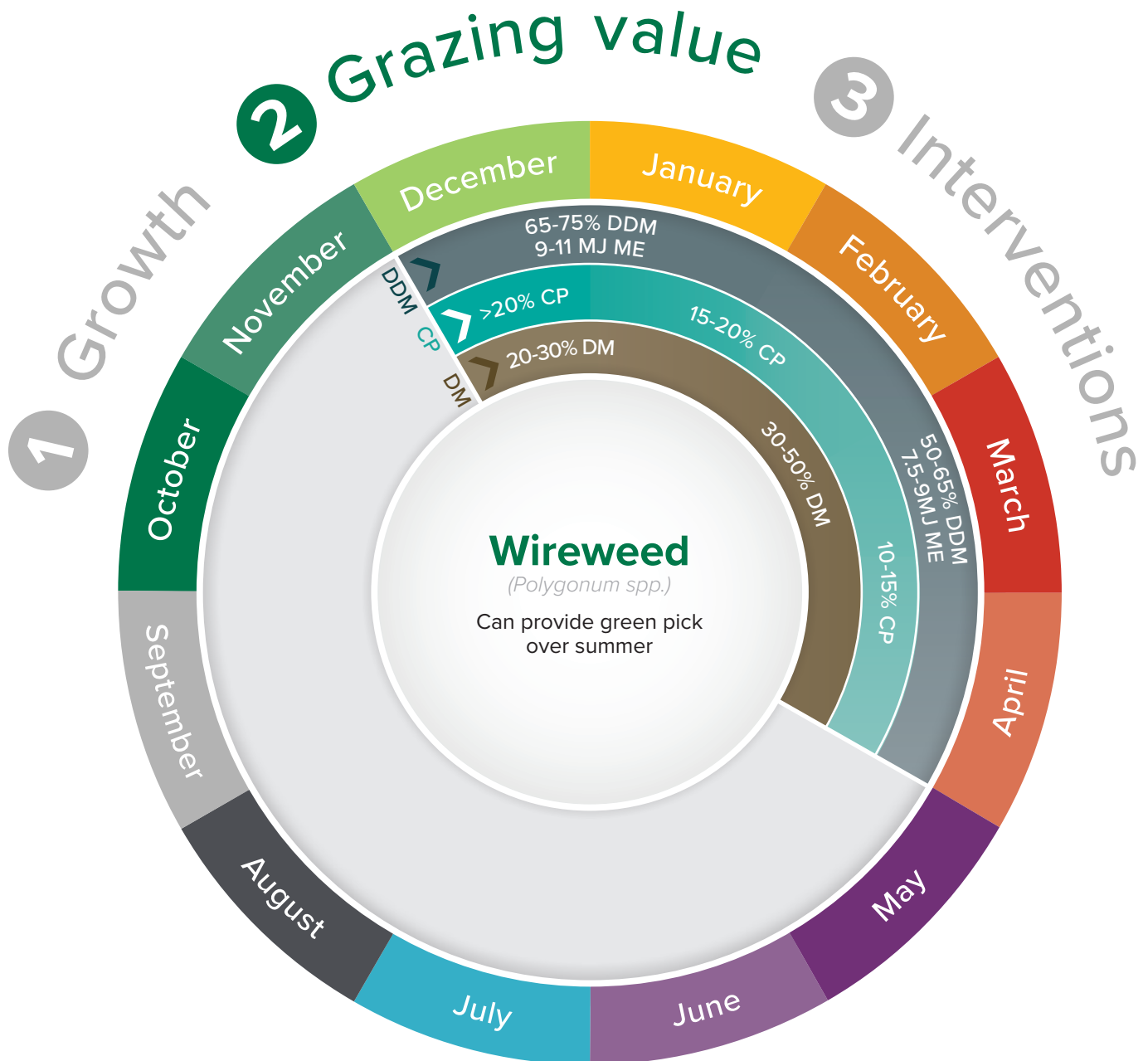
# Wireweed / hogweed

*Polygonum spp.*

[Main menu](#)

Each wheel contains three layers: 1. Growth 2. Grazing value and 3. Interventions

To access the information on each layer, simply click on the relevant layer's number below.



**DM** • Dry matter

**CP** • Crude protein

**DDM & ME** • Digestibility and metabolisable energy

[About feed quality information](#)

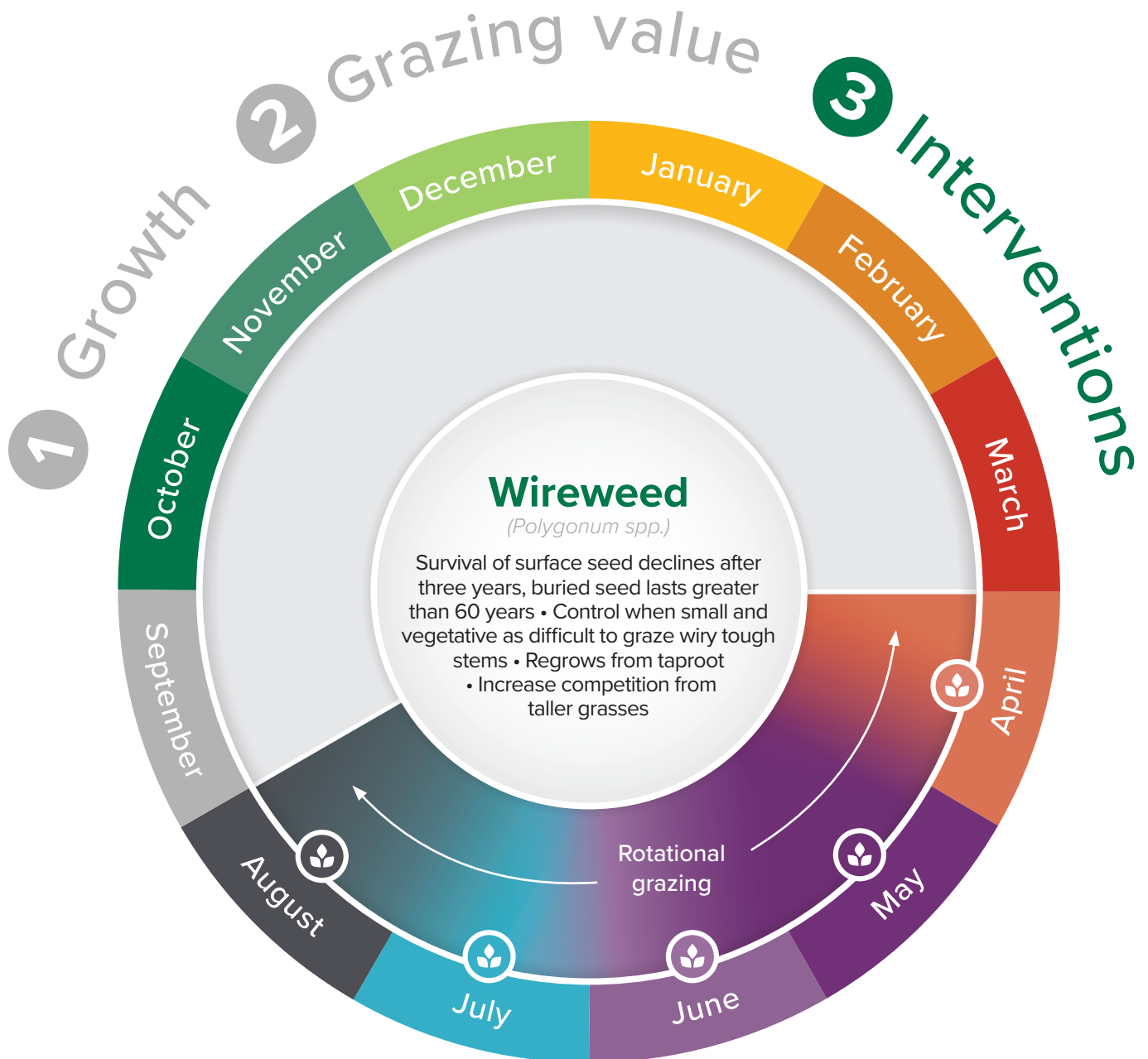
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*Polygonum spp.*

Main menu

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