

Are we describing the phenological development of Chickpea and Lentil correctly?

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Understanding the phenological development of a crop is critical to matching genetics to the environment. In Australian pulse research the focus on flowering as a critical development stage has dominated the way we classify cultivars. However, the focus on an open flower is likely to be confounding our perception of when the plant actually enters the reproductive stage. After reviewing and using a range of phenological keys to describe indeterminate plant species, we have modified the BBCH generic pea phenology key to specifically suit lentil and chickpea. Using this key, we have made over two hundred thousand observations in two climatically different environments. Preliminary results suggest that bud development is a much more reliable indicator of the sensitive reproductive phase. The use of clearly defined stages emergence, budding and flowering will more reliably describe crop development in ways that best relate to the sensitive stages of the crop. This will significantly improve advice to growers and consultants to help target critical period into the optimal environmental window.