

11th June 2020

SLR Ref: 620.11226.005

Priority Agricultural Land Use Assessment MLA 50232

RPI19/009 - New Acland Stage 3

Further Requirement Notice

DEPBN20/129

The following further information pertains to reporting regarding the 2010 stubble and crop residue still showing in the 2013 images, specifically relating to the direct comment taken from the Addendum for Actions 3(g) - 3(l) and 3(q)(i)(ii).

Cropping was undertaken in 2010, and the 2011 image shows stubble and crop residue carried over from 2010, with no evidence of cropping or cultivation (clearing) undertaken in 2011.

No Google Earth image available from 2012 (same as 2011 image).

2013 image shows a small amount of grazed stubble and crop residue carried over from 2010, with no evidence of cropping or cultivation (clearing) undertaken in 2012 or 2013. As can be seen from the 2011 and 2013 images the harvest pattern in the remaining stubble is exactly the same, further indicating no cropping or cultivation (clearing) activities undertaken in 2011, 2012 or 2013.

Slower grass pasture re-establishment due to very heavy, Black Vertosol (high clay content) soils and also probable use of residual herbicides during the cropping phase, as residual herbicides remain active for much longer on high pH soils.

There are no herbicide application records available from these years, however it is reasonable to ascertain that residual herbicide was used during the 2010 cropping program due to the very slow regeneration and establishment of the perennial native grass pasture. Past practice of APC was to rely on the native grass seedbank to re-establish grazing pasture following the cropping program. Sowing of pasture was generally not undertaken during the assessment years.

Common residual herbicides for crops grown by APC are listed below, along with the plant back period, which is the time the herbicide remains active in the soil. The residual herbicide would have continued delaying pasture establishment during this period of continued herbicide activity. Also noting that soil pH for the Black Vertosol in these areas is alkaline.

Wheat

Triasulfuron (Logran) Soil pH 7.6 to 8.5 an 18 month plant back period.

Soil pH 8.6 and above a 24 month plant back period.

Chlorsulfuron (Glean) Soil pH 7.6 to 8.5 a 24 month plant back period.

Soil pH 8.6 and above not recommended for use.

Summer grain legume (e.g. Mungbean)

Imazethapyr (Spinnaker) 34 month plant back period.

Forage sorghum

Atrazine (Gesaprim) 18 month plant back period.

Breakdown of residual herbicide is reliant on both rainfall and soil microbial activity. It can reasonably be concluded from the above, given the probable use of residual herbicides during the cropping program, there is a potential lag period for perennial native grass pasture re-establishment of between 18 to 34 months. All the residual herbicides listed above are active on grass pasture seedlings and would have further reduced the available seed bank for pasture re-establishment during the period of activity.

Regards,

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