

10.1071/CP18288\_AC

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**Supplementary Material:** *Crop & Pasture Science*, 2019, **70**, 789-799.

**Effects of the orange lemma (*rob1*) mutant line of barley cv. ‘Optic’ compared with its wild-type on the ruminal microbiome and fermentation tested with the rumen simulation technique**

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**Figure S1.** Orange discoloration of the rachis, basal lemma and culm as result of the orange lemma (*rob1*) mutation compared to its wild-type (always right to the mutation). The mutation is monofactorial recessive, located on the short arm of chromosome 6H, and alters the sequence of the gene encoding cinnamyl alcohol dehydrogenase (CAD). The mutation was observed spontaneously and/or induced by both chemical and irradiation treatment in various genetic backgrounds.

## References

Franckowiak JD, Lundqvist U (2016) BGS 254, Orange lemma 1, *rob1*. *Barley Genetics Newsletter* **46**, 78-80.

Shahla A, Shim JW, Tsuchiya T (1983) Association of the gene *o* for orange lemma with the short arm of chromosome 6 (6S) in barley. *Barley Genetics Newsletter* **13**, 83-84.

Wolfe RI, Franckowiak JD (1991) Multiple dominant and recessive genetic marker stocks in spring barley. *Barley Genetics Newsletter* **20**, 117-121.