

## **Comments on: Stubble grazing by sheep by T.Treacher**

**From Timothy Treacher <pa1treac@uco.es>**

### **Further comments and questions from Timothy Treacher on stubble grazing**

The submission of the paper on stubble grazing by sheep was prompted by the papers by Chedly Kayouli and Ala Salman discussing supplementation in dryland farming situation.

1. There is a very large area of cereals in the Mediterranean basin and throughout Asia, which is an important feed resource for ruminants. For example, in the Mediterranean Basin from Morocco to Portugal there are 28.8 million ha of wheat and 16.8 million ha of barley. After removal of the cut straw following combine harvesting, which is increasingly common, there must be approximately 1 t DM/ha.

2. There is no indication that stubble is not fully utilised under dryland farming. However, in west Asia cereal stubble on irrigated land is very often burnt, because of the pressure to plant another crop quickly in June. Could cereal stubble, with more knowledge, be utilised more effectively?

3. The limited information on stubble quality indicates that the CP/ME ratio would be expected to limit intake and it is likely that some supplementation with nitrogen or protein would improve intake. This contrasts with the flockowners experience that body condition and oestrus activity increase after the start of stubble grazing. It is possible that the breeds in the region are more efficient in nitrogen use.

Any information or comments on this would be valuable. There is a little data in ICARDA.

4. It is important to emphasise the lack of research on grazing of cereal stubble under dryland conditions in the Mediterranean basin, north Africa and Asia regions. The Australian research in the 1970 s and 1980 s showed very low intakes of straw itself and most intake on stubble being of the green weed fraction. This clearly not the case in the "Old World" systems.

5. More information is particularly important as stubble is used in the mating period and may/does critically affect the annual performance of the flocks.

If there is some unpublished data, it would be extremely valuable to know where it is.

6. Two of the experiments reported in the paper demonstrate large responses in performance to small amounts of supplementation, when the level of utilisation of the stubble was greater than 90%. This suggests that flockowners might greatly improve annual performance by supplementing, at a low level, in summer and improving the body condition of their flocks before the winter. This could reduce the need for high levels of hand feeding in autumn and winter, which is increasingly common, at least in west Asia.

7. The rooted cereal plants have an important role in preventing or reducing wind erosion in late summer and autumn. At present high levels of utilisation by flocks results complete removal leaving the ground bare. Intakes in the final days on an area are also low.

There is need for information on an acceptable balance between utilisation, intake and soil protection to improve the integration and sustainability of the crop and livestock systems.

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