

Subject: Noise from the North #1

Date: sunnuntai 12. lokakuu 2008 13:17

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To: <Recipients>

Conversation: Noise from the North #1

Dear Madam/Sir,

This is the first in a series of short e-mail articles that are presented to help in discussing the current politics of hemp in the EU, which is not a simple or even logical process at times.

I have attached an excellent new article by Dr. Stefano Amaducci et al. for your information purposes. This article carefully describes the flowering dynamics of monoecious and dioecious varieties of hemp, and illustrates an important point that is neither intuitive nor obvious; i.e., the complexities of hemp flowering characteristics.

Understanding the development of hemp morphology is necessary to determine the correct time of sampling a hemp crop for THC testing, according to EU regulations. In particular, the end of flowering is an important point that determines the time of sampling, but "end of flowering" is never described or defined in Annex 1 of EU Regulation No 796/2004 (also attached). Typically, official crop sampling agents in EU Member States, who may or may not know anything about hemp, are expected to visit hemp crops during the summer months, often for the first and only time, and take samples (supposedly at the correct time) according to the regulation.

By reading this article by Amaducci et al., it becomes apparent how difficult and tedious it is for even trained observers to make an accurate determination of this elusive point during the development of a hemp crop. For this reason, it is important to ask; In practice, how is the end of flowering correctly determined for the purpose of taking hemp field samples for THC testing in the EU? This is important to know because THC levels vary throughout the development of a hemp crop. This is why the EU has constructed a variety of sampling procedures in Annex 1 of EU Regulation No 796/2004.

This question is especially relevant for dioecious oilseed hemp varieties like Finola, which typically reaches its end of flowering by 65 days after sowing under ideal conditions in Finland, where Finola was developed in

1995 and where it is still maintained. The end of flowering for Finola occurs in even less time if the conditions are unfavorable. Inevitably, Finola has been sampled late by authorities, where ever it has been grown, especially in Finland, Sweden and the UK. Late samples have resulted in THC values that are sometimes over the 0.2% THC limit for subsidized crops. This is why Finola was removed from the EU list of subsidized hemp varieties after 2006.

This erratic application of the sampling protocol has also resulted in the recent delisting of the Hungarian oilseed variety Tiborszállási, which has been sampled late in both Finland and Sweden in recent years. Results from the EU Commission show that the French monoecious fiber variety Fedora 17 tested over the 0.2% THC limit outside of France in 2006, when it was left in the field for relatively long periods of time and possibly sampled by untrained individuals who were unable to determine the correct time of sampling for this variety. In short, all hemp varieties are at risk of arbitrary sampling under these circumstances.

One must also ask, who really benefits from these complex and peculiar regulations?

Hemp is not a drug. Unlike drug varieties of Cannabis, there is no evidence to suggest that any hemp variety can be effectively used for drug purposes. The levels of THC are simply far too low in hemp, even in the most extreme examples. Moreover, the higher levels of CBD in hemp will effectively attenuate the possibility of a psychoactive drug effect, even if someone were to try and use hemp for drug purposes. The topic of CBD and THC will be discussed from a scientific point of view in Noise from the North #3.

Next week, in Noise from the North #2, I will send you a pre-print of a new article that details the inherent problems in the EU sampling and analytical methodologies, which are both used and misused in the evaluation of THC in hemp varieties throughout the EU. Also in that article will be examples and specific suggestions on how to improve the accuracy and precision of these methodologies.

In the mean time, you are welcome to learn more about hemp and healthy nutrition from hempseed at <http://www.finola.com>

Sincerely yours,

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Flowering Dynamics in Monoecious and Dioecious Hemp Genotypes

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ABSTRACT. Flowering is a crucial phase in hemp cultivation. It influences both stem and seed yield. A uniform and short flowering duration

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The financial support for the field experiments was granted by the Italian Ministry of Agricultural and Forestry Policies and the European Commission. The authors would like to acknowledge all the students involved in the difficult and time-consuming operation of flowering count, with particular thanks to M. Errani, S. Scicchitano, F. Pelatti, and P. Lafabiana.

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Journal of Industrial Hemp, Vol. 13(1) 2008
Available online at <http://jih.haworthpress.com>
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doi:10.1080/15377880801898691

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COMMISSION REGULATION (EC) No 796/2004

of 21 April 2004

laying down detailed rules for the implementation of cross-compliance, modulation and the integrated administration and control system provided for in Council Regulation (EC) No 1782/2003 establishing common rules for direct support schemes under the common agricultural policy and establishing certain support schemes for farmers

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to Council Regulation (EC) No 1782/2003 of 29 September 2003 establishing common rules for direct support schemes under the common agricultural policy and establishing certain support schemes for farmers and amending Regulations (EEC) No 2019/93, (EC) No 1452/2001, (EC) No 1453/2001, (EC) No 1454/2001, (EC) 1868/94, (EC) No 1251/1999, (EC) No 1254/1999, (EC) No 1673/2000, (EEC) No 2358/71 and (EC) No 2529/2001⁽¹⁾, and in particular Articles 7(1), 10(3), 24(2), 34(2), 52(2), 145(b), (c), (d), (g), (j), (k), (l), (m), (n), (p), thereof,

Whereas:

- (1) Regulation (EC) No 1782/2003 introduced the single payment scheme as well as certain other direct payment schemes. At the same time it merged several existing direct payment schemes. Moreover, it establishes a principle according to which direct payments to a farmer who does not comply with certain conditions in the areas of public, animal and plant health, environment and animal welfare ('cross-compliance') shall be subject to reductions or exclusions.
- (2) The direct payment schemes first introduced as a result of the reform of the common agricultural policy in 1992 and further developed under the Agenda 2000 measures have been subjected to an integrated administration and control system (hereinafter referred to as 'integrated system'). That system has proven to be an effective and efficient means for the implementation of direct payment schemes. Regulation (EC) No 1782/2003 builds upon the basis of that integrated system and submits to it the management and control both of the direct payment schemes set up by it and the adherence to the cross-compliance obligations.

laying down detailed rules for applying the integrated administration and control system for certain Common Agricultural Policy schemes established by Council Regulation (EC) No 3508/92⁽²⁾ and to base this Regulation on the principles as established by Regulation (EC) No 2410/2003.

- (4) For reasons of clarity, it is appropriate to provide certain definitions.
- (5) Regulation (EC) No 1782/2003 provides, as part of the cross-compliance conditions, for certain obligations for Member States on the one hand and individual farmers on the other hand, as regards the maintenance of permanent pasture. It is necessary to lay down the details for the implementation of the ratio of permanent pasture to agricultural land that has to be maintained and to provide for individual obligations at the level of farmers to be implemented where it is established that that proportion is decreasing to the detriment of land under permanent pasture.
- (6) For the sake of effective control and to prevent the submission of multiple aid applications to different Payment Schemes within one Member State, the Member States should provide for a single system to record the identity of farmers submitting aid applications subject to the integrated system.
- (7) Detailed rules are needed with regard to the system for the identification of agricultural parcels to be operated by Member States in accordance with Article 20 of Regulation (EC) No 1782/2003. According to that provision, the system to be made of computerised geographic information system techniques (GIS). It is necessary to clarify the level at which the system should operate and the level of information that has to be available in the GIS.
- (8) Moreover, the introduction of an area payment in Chapter 4 of Title IV of Regulation (EC) No 1782/2003 leads to the need for the introduction of a new system for the release of information in the GIS. However, it is appropriate to release those Member States from this obligation

(3) It is therefore appropriate to repeal Commission Regulation (EC) No 2419/2001 of 11 December 2001 laying

maximum guaranteed area is 1 500 ha or less at
vide for a higher control rate for on-the-spot
instead.

(¹) OJ L 270, 21.10.2003, p. 1. Regulation as amended by Regulation (EC) No 21/2004 (OJ L 5, 9.1.2004, p. 8).

(²) OJ L 327, 12.12.2001, p. 11. Regulation as last amended by Regulation (EC) No 118/2004 (OJ L 17, 24.1.2004, p. 7).