



**Position Paper regarding Proposed Mandatory  
Fortification of White Flour with  
Folic Acid.**

Traditional Cornmillers Guild  
February 2019

## Summary

For the reasons stated below, based on the current information available regarding the Government's draft proposals (for consultation) to fortify unbleached white flour with Folic Acid, the Traditional Cornmillers Guild hereby makes its case for an exemption from any regulations to fortify flour with Folic Acid for traditional wind and watermills producing less than 1,000 tonnes of flour per annum.

This exemption is sought on the grounds of the impracticality for traditional mills to add such small quantities of Folic Acid in a consistent manner given the traditional flour milling process, the consequent potential risk to consumer health, and threat to the integrity, historic character and sustainability of these mill buildings of importance to our national heritage should there be a requirement to install machinery capable of blending Folic Acid into white flour.

## Introduction

In October 2018 the Government announced that it was to conduct a consultation with a view to making fortification of flour with Folic Acid mandatory, to minimise the risk of pregnant women giving birth to children with Neural Tube Defects, caused by a deficiency of folates in the diet.

It is understood that it is likely that implementation will be recommended by adding Folic Acid to **white wheaten flours only**, at the mixing stage.

## About the Traditional Cornmillers Guild (TCMG)

The Guild represents windmills and watermills producing stoneground flours using horizontal millstones, where wind or water is the primary source of power, and where sale of flour for commercial purposes is a significant aspect of the enterprise. Member mills include some in private ownership, others owned and run by local authorities, limited companies, charities and larger estates. Most are of significant historic and heritage interest. Many produce specialist flours. The Guild does much to uphold, train and encourage good practice in the traditional craft of artisan milling, in association with the Society for Ancient Buildings (SPAB) Mills Section, and with our European colleagues.

## Background

The TCMG has been aware of the potential issues for traditional mills surrounding the fortification of flour with folic acid for some years. The Guild made representation to DEFRA led consultation in 2009 / 2010, meeting with Dr Michelle McQuillan and colleagues at the time to raise our concerns along with representations to the then Agriculture Minister, James Paice MP.

With the renewed pressure to move the issue forward from the Scientific Advisory Committee on Nutrition (SACN) in 2018, the Guild agreed at the TCMG Autumn Meeting in November 2018 that a survey of members should be carried out to build data in order to understand the

potential impact of any future requirement to add folic acid to flour. The survey was designed to establish the quantities and types of flours currently being milled, including white flour, along with details of the processes mills use including mixing methods and any potential difficulties that might prevent effective implementation of fortification.

Based on that survey and further discussion with members, our position is as follows:

### **The Guild's Position**

1. The Guild supports the intention to minimise any risk of neural tube defects.
2. The Guild understands the rationale behind the proposal to fortify flour, as a foodstuff consumed by a majority of people, and therefore most likely to reach at-risk individuals.
3. It is understood that very precise dosage of Folic Acid is a critical factor to ensure the well-being and safety of all individuals consuming fortified flours.
4. Traditional milling uses horizontal millstones, a very different process to modern roller milling (see diagrams in the Appendices below). The majority have no mixing or blending equipment.
5. The basic processes and technology used in traditional milling are inappropriate and impractical for highly accurate and consistent dosage in the very small amounts that are likely to be proposed.
6. This is because the traditional mills that produce unbleached white flour use simple, basic mixing arrangements to add Creta Plus<sup>1</sup>, (typically small batches of around 25 kilos) or add Creta Plus into the flour sieving process at the feed bin to the flour dress (see diagrams below).
7. Adding additional processes into the flour production cycle would significantly increase costs in terms of labour, putting at risk the commercial viability of producing white flour in traditional mills. Traditional milling of flour is a highly labour intensive, low margin business activity, even acknowledging the premium price charged for artisan stoneground flours when compared to roller milled flour.
8. The survey confirmed that 62% of the mills represented by the Guild are listed Grade 2\* and above which significantly restricts their ability to change their internal layout without listed building consent. Only three of the Guild's mills are not listed, as such all have significant Historic Interest. Thus, any requirement to install sophisticated mixing equipment would a) compromise their integrity and b) be difficult to achieve given the Listing issues outlined above.
9. Limited space for mixing machinery was cited as another potential issue for some mills.
10. Guild members' unbleached white flour output is estimated at less than 0.013% of UK output.
11. Given the socio-economic make-up of the great majority of Guild mill customers, the statistical likelihood of Guild flours being used by identified at-risk people within the UK is likely to be extremely small.

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<sup>1</sup> Creta Plus is the trade name for the powder substance that contains the active ingredients calcium, vitamins and iron, statutory additions to flour required by the Bread & Flour Regulations 1998.

12. It is our understanding that there are some risks associated with over-dosing. Given these risks, any requirement to hold flour back until it had been tested to assess actual levels of Folic Acid would be prohibitive both in terms of cost of testing and ability to deliver to customers.
13. On balance, therefore, it is judged that the risk of inaccurate dosage, which could be consumed by a larger number of our customers, is likely to be greater than any potential benefit.
14. Additional cost of equipment, testing of flours, time for training of volunteers, and administration could jeopardise the viability, and potential sustainability of member mills.
15. Traditional milling, mills and their products, and the skills associated with running and maintaining them, are therefore considered inappropriate vehicles for delivering the proposal.

**Therefore traditional mills would seek exemption from the requirement to fortify, on the grounds of impracticality, potential risk to consumer health, and threat to the integrity, historic character and sustainability of buildings of importance to the national heritage.**

**If traditional mills were not exempted, there is a significant risk that the future viability of traditional mills would be put at risk, thus endangering the future of a significant number of the nation's listed buildings which rely on income from flour production to secure their futures.**

#### **Our recommendations:**

1. That, if Unbleached White Flour is the preferred vehicle for fortification, traditional mills producing less than 1,000 tonnes of flour be exempt from the requirement to fortify.
2. That all wholemeal and specialist flours and grains be exempt from the requirement to fortify.
3. That any Unbleached White Flours exempted from adding Folic Acid be clearly labelled.

### **Working Traditional Mills not part of the TCMG**

In addition to TCMG members, there are approximately 60 additional traditional wind and watermills producing flour in the UK. A reasonable estimate of their current production is considered to be between 250 and 300 tonnes of flour per annum. Based on the proportions of wholemeal and white flours of Guild members, we estimate their white flour production to be around 95 tonnes per annum.

## Survey Results

### 1. Response.

24/31 mills responded, including all the major producers.

### 2. Listed Building Status.

Of those 24, 2 are Grade 1, 13 are Grade2\*, 5 are Grade 2, 1 is Grade 2 (pending) and 3 have no current listing.

### 3. Production

Total annual tonnage from the respondents based on year 2018:

All flours =	1,647 tonnes.
Organic flours =	1,146 tonnes.
100% Wholemeal flour =	644 tonnes
Unbleached white flour =	511 tonnes
Specialist flours (mixes, rye, spelt, barley, heritage grains) =	243 tonnes
Mids/bran/semolina sieved off from white flour =	244 tonnes

Individual Guild members' (respondents) production varies considerably:

500 - 1000 tonnes p/a	1 mill
100 - 500 tonnes p/a	2 mills
50 - 100 tonnes p/a	1 mills
10 - 50 tonnes p/a	10 mills
5 – 10 tonnes p/a	8 mills
Less than 5 tonnes p/a	2 mills

The 7 non-respondents are estimated to produce between them less than 300 tonnes per annum.

Guild member's **total** annual production is therefore estimated at not more than 1,950 tonnes.

This is less than 0.049% of total UK production which is c4,000,000 tonnes p/a [Figures courtesy NABIM}.

The percentage of Unbleached White Flour produced by Guild members is therefore estimated to be less than 0.013% of total UK production (all flours).

### **Mixing and Blending Arrangement**

11/24 respondents blend or mix flours.

Of these, 5 mix in small batches (eg 25 Kilos), 1 uses a churn, 5 use mechanical mixers.

12 respondents said they would not be able to install any mixing machinery: reasons cited included aesthetic integrity, space, cost, time and expertise.

**Report compiled by Nick Jones, Hon Secretary and past Chairman, TCMG and Jonathan Cook, past Chairman, TCMG, and SPAB Mills Section.**

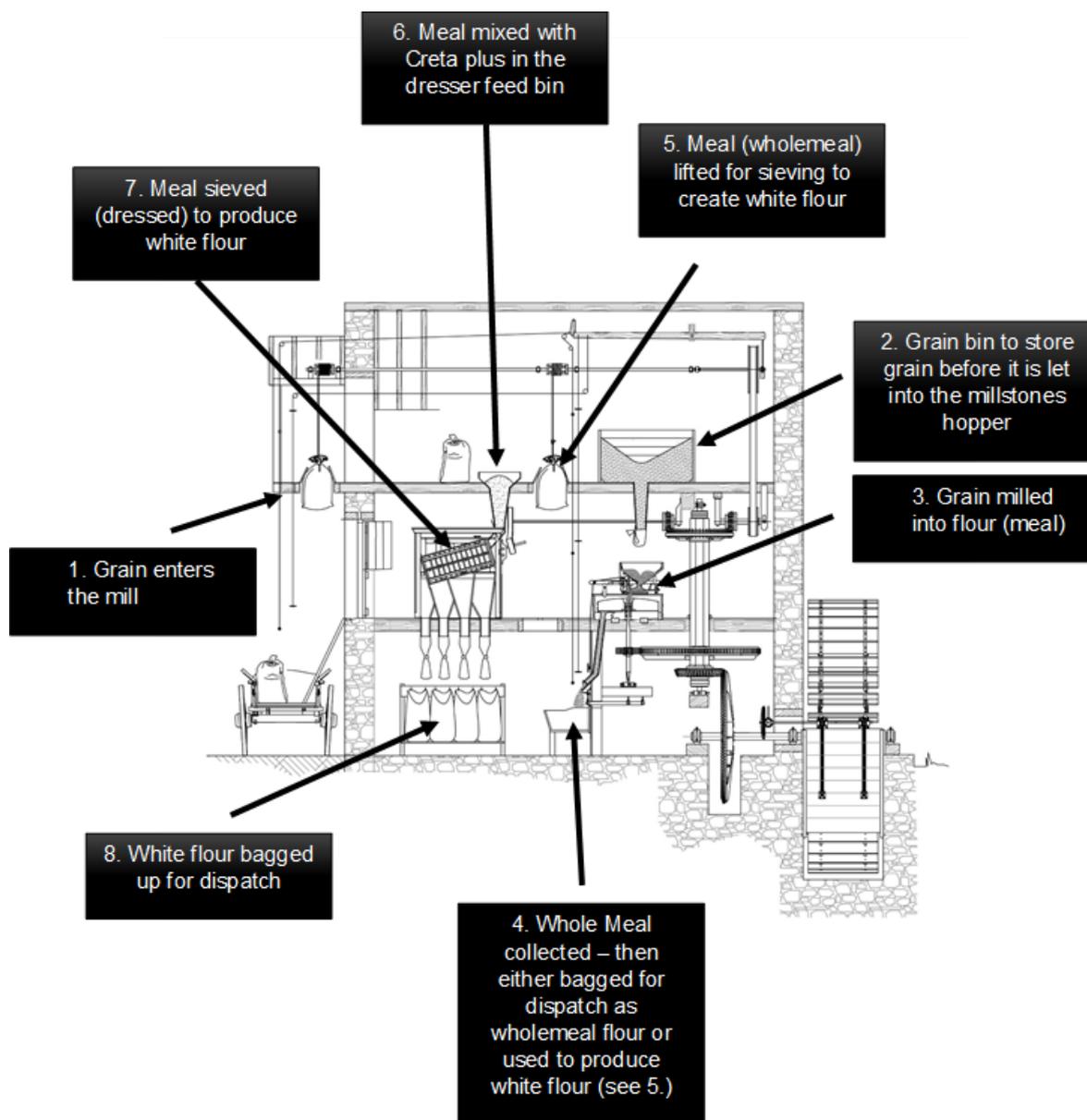
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Appendices follow:

1. Diagram to Illustrate the Traditional Milling Process using horizontal millstones.
2. Diagram to illustrate white flour process in a traditional mill.

## Appendix 1: Diagrams to Illustrate the Traditional Milling Process

Whilst the form of power is different between wind and watermills, the method of flour production is identical. The diagram below shows the layout of mill machinery in a traditional watermill – as can be found in many of the UK’s working watermills. The process is then described in more detail in the drawings that follow:



**Note:** *Creta Plus* is the trade name for the powder substance that contains the active ingredients calcium, vitamins and iron, statutory additions to flour required by the Bread & Flour Regulations 1998.

## Appendix 2: White Flour Production Process

The diagram below shows the white flour production process in greater detail. As described above, follow the process from 1. As can be seen, most traditional mills do not possess equipment to mix and blend additives to flours in any consistent way. Creta Plus, the mix of additives required to ensure white flour contains the levels of vitamins and minerals required to meet the standards set out in the Bread & Flour Regulations 1998 is typically added to the meal in the dresser feed bin. Whilst this ensures white flour meets the Regulations, it is not an exact method and most mills cannot guarantee an exact and even distribution of Creta Plus in white flour. This is not a significant issue given the current constituent elements of Creta Plus, but if folic acid is to be added, our understanding is that over dosing will be a major issue and one with a potential impact to human health.

