



FLUID FERTILIZER
FOUNDATION



NIFSA

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Poorly Managed
Credit System
Can Be A Killer

Pre-Spring Issue

Features

- 18 Poorly Managed Credit System Can Be A Killer *by Dean Barnett*
- 24 Supply/Demand Outlook: Expect About Same For '85 *by J. Darwin Bridges and Norman L. Hargett*
- 34 The Business Will Be Out There *by Bill Farmer*
- 38 100-Bushel Wheat In UK *by Dr. J. J. Smith*
- 50 Dynamics of International Trade: What Is At Stake For American Agriculture *by Dr. E. E. Waller*
- 60 Curbing N Loss In Reduced Till *by Dr. David B. Mengel*
- 70 Is Long-Range Planning Really Worth It? *by Jim Hull*
- 74 Worker "Right-to-Know" *by Dwight Dunbar*
- 80 Educating Your Banker *by Tom Weatherwax*
- 86 Selling Year-Round In Southwest *by Ned van Buren*
- 90 Agricultural Policy At Crossroads *by Dennis Brown*

Departments

- | | |
|-----------------------|------------------------|
| 6 President's Message | 92 Industry News |
| 9 Agri-Flash | 96 New Products |
| 10 Calendar of Events | 99 People |
| 12 Agronomy Tips | 101 Classifieds |
| 82 Pesticide Watch | 102 Advertisers' Index |

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100-Bushel Wheat in UK

Author states nitrogen is vital to high-yield wheat and spells out advantages of using fluids in achieving profitable wheat production

By Dr. J.J. Smith

In the last fifteen years, winter wheat has become a popular cereal crop in the UK. In the '83/'84 season, total production was around 433 million bushels from 4.7 million acres. Yields of winter wheat in the UK have more than doubled over the past two decades. The current national average crop will yield around 95 bushels per acre, with many crops in excess of 135 bushels per acre.

The pursuit of high-yielding wheat has produced a profusion of scientific and agronomic practices from which growers may select the best means for producing wheat on their farms. Traditionally, wheat has been a crop suited to heavy-textured soils. However, with the advent of new practices, growers on light-textured soils may now adapt new technology to produce high-yielding crops. In many ways, this has been the key to the expansion of the wheat crop.

Accompanying the steady rise in wheat yields over recent years has been a corresponding rise in nitrogen fertilizer use (Figure 1). It is not unusual for a quarter or more of UK wheat produced to receive in excess of 178 lbs. per acre of nitrogen. It is generally agreed that improved wheat varieties have also made a major contribution to the increased average yield in the UK.

The balance of this article will describe the methodologies we use in the UK to produce high-yielding, profitable wheat.

"Good Start Good Finish"

As with most crops, the maxim,

TRAMLINES in wheat crop enable precise matching of spray boom widths, so essential for accurate application of fertilizers and ag chemicals.

"good start good finish" applies to winter wheat. Without sensible preparation and thought in the autumn, the full harvest potential for winter wheat will never be realized. Before the crop is drilled, many points have to be considered.

Variety. To identify best varieties that will produce profitable yields, the National Institute of Agricultural Botany (NIAB) conducts a series of field experiments throughout England and Wales. New and old varieties are compared for disease resistance and quality. Additional tests on promising new varieties by the NIAB and the Agricultural Development and Advisory Service (ADAS) result in the NIAB List of Recommended Varieties (Table 1). Relative merits listed include disease resistance, yield, latest safe-planting date, shortness of straw, earliness of ripening, and specific weight (bushel weight). Similarly listed is grain quality. Varieties for bread making can be selected according to how they score for ease of milling, flour texture and protein content.

Although varieties are bred with certain genetic characteristics, crop management and seasonal differences can have profound effects on how these characteristics express

Dr. Smith is technical services manager for J.W. Chafar Limited in Doncaster, South Yorkshire, England.



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1987
FLUID FERTILIZER FOUNDATION
Symposium Proceedings



"EFFECTIVE USE OF FLUID FERTILIZERS IN AGRONOMIC PRODUCTION"



A Report to the Fluid Fertilizer Foundation Membership

Clearwater Beach, Florida
March 16-18, 1987



Educational Session No. 4

New Directions: The Fluid Fertilizer Foundation in 1988

Julian Smith, Ph.D.
Fluid Fertilizer Foundation
St. Louis, MO

Introduction

Since the formation of the Fluid Fertilizer Foundation in 1982, 34 fluid agronomic projects have been completed in the U.S. and over a million dollars has been granted to university researchers. The FFF has gone a long way in satisfying the original concepts that brought about its formation - to provide financial support to proven university researchers to advance fluid technology and provide independent, scientifically credible fluid sales information. The FFF remains unique as an interface between the scientific community and fluid fertilizer retailers.

Importantly, during the early development of the Foundation, it rapidly established itself as a highly credible and professional body in the eyes of university researchers. This was vital in enabling the FFF to serve its membership and satisfy the goals set at its inception. The Foundation's goals five years on remain the same:

1. To evaluate the agronomics of fluid fertilizers in the production of maximum economic crop yields.
2. To develop effective application techniques for fluid fertilizers.
3. To demonstrate the efficiencies and convenience of fluid fertilizer systems.
4. To develop innovative uses of fluid fertilizers under varied cultural, pest control and water management practices and all other potential uses.
5. To facilitate the dissemination of the information developed by the supported research.

Current Status

In 1987, the FFF supports 27 fluid fertilizer research projects in 20 states and England (Figure 1). The projects cover a wide range of studies into fluid fertilizer management and involve a total of 45 individual

Figure 1. Fluid Fertilizer Foundation 1987 Project Location



27 Projects in 20 States and England

studies comprising 71 experiments at 56 locations. The depth of project detail facilitates investigation of all major nutrients and application methods for all major crops relevant to the bulk of the fluid industry (Table 1). For example, over half of the projects involve N-P-K studies and corn is the study crop in 52% of the projects.

The current projects will add considerably to the wealth of information already at the disposal of the FFF membership. This emphasizes one of the key functions of the FFF - information dissemination. Currently, the Foundation produces an annual Research Symposium Proceedings containing the fully documented research data of the university and extension agronomists receiving FFF grants. In addition, the FFF provides sales oriented research summaries in the shape of "Fluid Facts" and slide/tape

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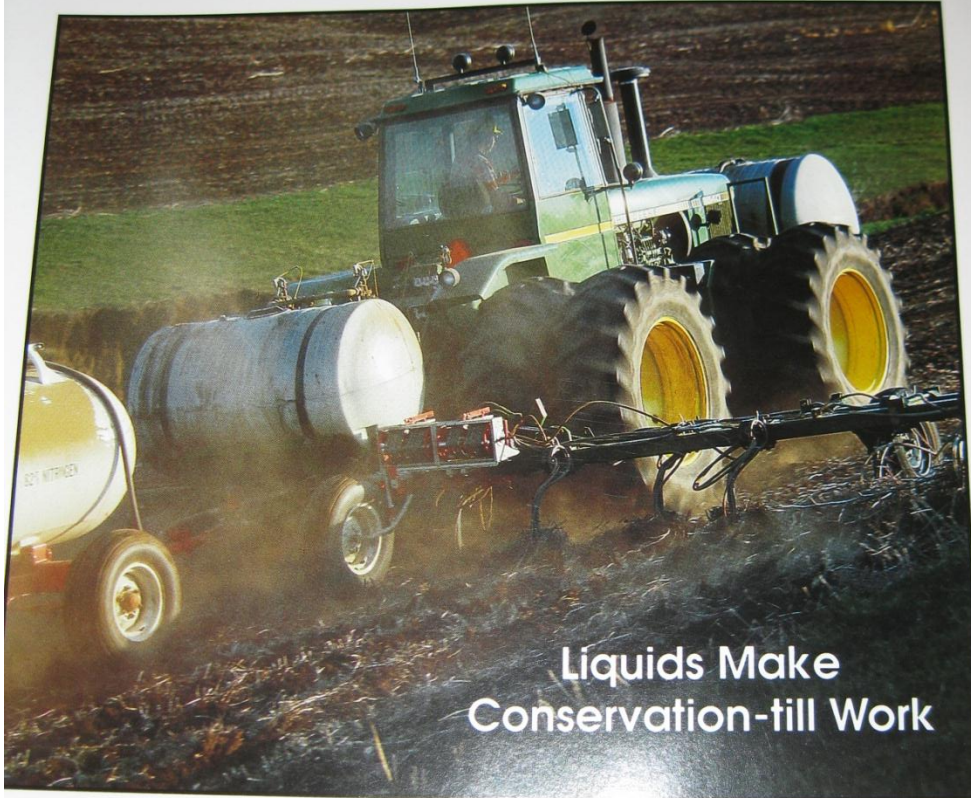


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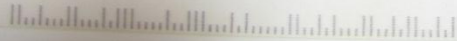


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Fluids in Systems Agriculture

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Ammonia Volatilization

EFFECTS OF LATE-SEASON
FOLIAR APPLICATIONS OF SULPHUR,
AND THEIR INTERACTIONS
WITH NITROGEN,
ON WHEAT YIELD AND QUALITY

M. W. GRIFFITHS BSc

Ph.D

1989

INTERACTIONS BETWEEN
LATE-SEASON FOLIAR
APPLICATIONS OF UREA AND
FUNGICIDE ON FOLIAR
DISEASE, YIELD
AND BREADMAKING
QUALITY OF WINTER WHEAT

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