

**COTTON RESEARCH AND DEVELOPMENT CORPORATION  
FINAL REPORT**

**Project Number** : DAN55C

**Project Title** : AN INVESTIGATION INTO ANHYDROUS AMMONIA  
APPLICATION EQUIPMENT AND ITS POTENTIAL CAUSE  
OF STRIPING

**Field of Research** : Crop management - development      **Field Code** : 4.1

**Organisation** : NSW Agriculture

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**Co-operating  
Researchers** : None

**Administrative  
Contact** : Mr. G. Denney, Research Co-Ordinator, (063) 616 100

**Commencement Date** : December 15, 1990

**Completion Date** : June 30, 1991

**Objectives** :

1. To develop a method for the measurement of mass flow of anhydrous ammonia fluid.
2. To determine the level of variability in output from the outlets of application rigs using either the "gas", "cold flo" or "liquid" processes (stage 2).
3. If indicated by stage 2 that the level of variability is unacceptable, modify/develop the application rig to ensure even distribution of N. This may include the development of a device for the continuous monitoring of the flow and distribution of anhydrous ammonia during application in the field (stage 3).

Due to the submission being made "out of season" and the subsequent delays in approval and funding, objective 3 was omitted from the program. However, research into other aspects of the this problem of "striping" were initiated in the areas of :

- using plant N and yield to determine evenness of uptake of  $\text{NH}_3$ ,
- developing field detection systems for evenness of application