



FSA Update

FSA Consulting
FSA Environmental
FSA Irrigation
Feedlot Services Australia

FSA Update

December 2003

Seasons Greetings!

All the staff here at FSA Consulting want to wish you a safe, happy and memorable Christmas and a very wet and successful New Year.



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COUNCIL GIVES GREEN LIGHT TO PIGGERY DEVELOPMENT

Lemon Springs Piggery Pty Ltd applied for a planning permit and after advertising and notifying referral authorities, the Council approved the planning permit.

FSA Consulting carried out the environmental assessment for this piggery development.

Lemon Springs Piggery Pty Ltd proposes to establish a piggery of 2500 sow capacity at a capital cost of about \$14M. After reviewing a range of sites, land was purchased at Lemon Springs, 28 kms south of Kaniva, Victoria.

There were no objections to the proposed piggery. However VicRoads, EPA and Council have included

some conditions. All of the conditions are acceptable to Lemon Springs Pty Ltd.

FSA Consulting also completed a Greenhouse Gas Audit report as part of the Works Approval Application. The works approval is expected to be granted in late January 2004.



FSA CONSULTING'S SPONSOR CHILD



FSA Consulting has recently decided to sponsor a child. We have a nine year old boy from Sri Lanka. His name is Roshan Priyantha Jayasinghe. If anyone could tell us how you say that, it would be great.

Roshan is in Grade 4 and his favourite game is ball games.

He lives with his parents in a rural area. His father is a subsistence farmer, in good years barely raising enough food for his own family.

Life is about choices.

This choice is about life.

World Vision
Australia

change a
life ...



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DEVELOPMENT OF ODOUR PERFORMANCE CRITERIA FOR THE AUSTRALIAN FEEDLOT INDUSTRY

Meat and Livestock Australia (MLA) recently contracted FSA Consulting and Queensland Department of Primary Industries to undertake project FLOT.323 “Development of Odour Performance Criteria for the Australian Feedlot Industry”. This project will develop an industry-specific odour impact criteria that enables feedlots to estimate site-specific odour emissions based on the design and operation of their feedlot and the climatic and topographic conditions for the site.



Modern Australian feedlot following 100 mm of rainfall— greatly improved manure management means pens dry quickly and odour emissions are vastly reduced.



The thankless task of drying hundreds of manure samples!

This project is collecting a range of odour samples from the main odour sources at two commercial feedlots.

The Queensland Department of Primary Industries is collecting and testing all of the odour samples to the new Australian Standard. Previous research has identified key variables influencing feedlot odour emissions. A range of

climatic and pad parameters will be monitored throughout the project to validate methods for estimating these key variables. An industry-specific odour impact criteria will be developed based on odour modelling and feedlot complaint history. An odour assessment methodology will be developed to provide guidance for undertaking site assessments in accordance with the new criteria.



QDPI staff floating odour sampling equipment out into a feedlot holding pond.



QDPI staff taking simultaneous odour emission measurements from a feedlot pen using a wind tunnel and flux chamber.

The outcomes of this project will ensure that feedlots can be sited appropriately with respect to potential off-site odour impacts. The odour impact criteria developed by this project will provide a technically sound methodology for estimating potential odour emission and dispersion that incorporates modern feedlot design and management processes. As a result, the new criteria will provide a more accurate reflection of the reduced impact resulting from improved practices. The new criteria will better reflect current feedlot odour emissions than the existing guidelines, which

are based on the old MLA research data.

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SUGAR CANE IRRIGATION IN SUMATRA

Imagine, on one farm, 65,000 ha of sugar cane partially irrigated using 3" pumps and hand-shift sprinklers! Your task, if you are willing to accept, is to develop a modern and efficient water resource and irrigation system across the whole farm.

FSA Consulting has taken up the challenge.

In south Sumatra, an Indonesian-owned company operates a very large sugar cane farm. There are three large sugar mills on the farm and an ethanol plant. All cane is planted, fertilised, sprayed and harvested by hand. Needless to say, this requires a large work force and some 30,000 locals are employed in various aspects of the farming system.



Imagine 65,000 ha of cane irrigated using hand-shift sprinklers!



"Lebungs" (gully dams in Australia), spread out through the cane fields, are currently the only source of irrigation water

The site gets over 2500 mm of rainfall each year but there is a marked dry season from May through to October. During this period, the cane is harvested and some replanted. At present, the irrigation equipment is only used to irrigate plant cane to get good crop establishment. However, recent agronomic advice has suggested that economically-viable yield improvements will occur if ratoon cane and mature cane is fully irrigated during the dry season.

FSA Consulting has been engaged to develop a water resource development program and to implement improvements to the current irrigation equipment and methods. The solutions proposed must be appropriate to the local situation and it is obvious that high-tech western ideas will not work. Maintenance of a large local employment base is essential.

A cultural faux faux!

On the first visit to the site, Peter Watts recommended to senior management that they needed more "lambungs". Unfortunately, a lambung is a stomach ache!! Lets try "lebung" (shallow lake) next time.



Peter Watts, from FSA Consulting, with local irrigation managers

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Staff Profile—Ainsley Smith

Ainsley grew up on a cotton and grain property near Dalby. Ainsley completed her Agricultural Engineering degree in 2002. While completing her degree she worked on surface irrigation with Dalton Consulting.

Ainsley joined FSA Consulting in July 2002 to help with the Land and Water Management Plan project and has continued to work with Irrigation Design & Management and Natural Resources Management.

Position: Agricultural Engineer

Special Work Interests: Irrigation Design including ring tanks and irrigation systems, Improving Water Use Efficiency and Natural Resource Management Training.

Leisure Time Interests: Water skiing and wakeboarding, having friends over for BBQ's and trying to make furniture out of old farm junk.



Staff News



For the past 7 months, FSA has had the pleasure of employing a Canadian engineering student—**Alison Weiss**.

Unfortunately we did not succeed at teaching Alison how to play beach cricket.

Sadly, Alison and her mouse costume have returned to Canada.



STRADBROKE ISLAND TRIP

A fishing trip to Straddie was a recent highlight for many staff and their partners. (Not that we actually caught fish). In total 15 of us took off and stayed in a house together. As you can see, much fun was had by all.

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