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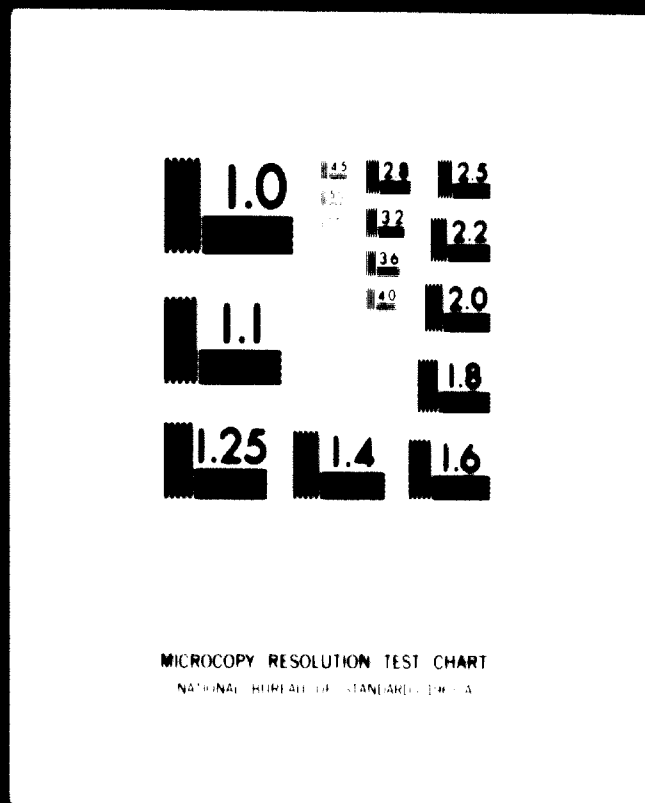
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Third Asian Meeting to Promote
Industrial Projects

Kuala Lumpur, Malaysia
14-21 November 1973

Project Information Sheet

PELLETIZED GRASS MEAL

COUNTRY

Malaysia

PROJECT

Pelletised Grass Meal

Capacity: 9,000 tons of pellets per annum

Total Investment: US\$ 700,000 approximately

FOREIGN CONTRIBUTION REQUIRED

Know-how

Equity participation

Sponsored by : The Economic Commission for Africa and the Far East (ECAFE) and
the United Nations Industrial Development Organisation (UNIDO).

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IMPORTANT NOTICE

The basic purpose of this meeting is to provide an Exchange or Market Place for the initiation of contacts on specific industrial projects between their proponents from the Asian countries and potential suppliers of capital, finance, equipment or know-how, as the case may be, from the industrialised countries.

This Project Information Sheet has been prepared as a basis for such contacts. Its purpose is not to present detailed information about the project but to provide the recipient with an outline sufficient to determine tentative interest in principle. Any further available information on the project will be furnished on request to interested parties at the Meeting.

Experience has shown that industrialists frequently prefer to carry out their own further investigations in detail into projects in which they are interested, but assistance from UNIDO in these matters can be rendered to the Asian country concerned on request.

This Information Sheet contains only the information supplied to UNIDO by the proponent of the Project. UNIDO can therefore take no responsibility for its accuracy.

PELLETIZED GRASS MEAL^{1/}

I. INTRODUCTION

The Project

To grow napier grass (*Pennisetum Prupureum*) on a minimum economic lot of 500 acres and to process the napier grass into grass meal pellets for animal feed in Malaysia. At present, grass meal is not industrially produced in Malaysia. Therefore, the project would substitute imports of grass meal and other components of animal feeds. At a later stage, export could also be envisaged for which potential markets exist in Singapore, Hong Kong and Japan.

Foreign Contribution Required

Know-how

Equity participation (minority)

II. ECONOMIC ASPECTS

The project will substitute imports and create new employment.

It is eligible for incentives such as import duty exemption for machinery and tax credit amounting to minimum 25% of total investment up to 5 years.

III. COMMERCIAL ASPECTS

Proposed Capacity

Grass : 90 tons per acre ^45,000 tons per annum

Pellets .3.75 tons/hour = 9,000 tons per annum (on single shift basis).

Market

Grass meal can be used in feed meals for poultry, hogs, cattle and horses up to a percentage of 5%. The estimated requirement of West Malaysia for poultry and hogs was approximately 300,000 tons of total feed in 1970. The present market for grass meal therefore is estimated at:

35,000 tons for poultry and hogs and

12,000 tons for cattle and horses

47,000 tons per annum in total.

In view of the increasing importance of livestock development an annual growth rate of 10% to 15% is expected.

Prices

CIF prices paid per ton of imported pelletized grass meal varies from country to country depending on protein and fibre contents of the meal. It is in the range of US\$ 84 - 115 per ton. The project envisages the sale of its product at US\$ 60/ton.

IV. PHYSICAL ASPECTS

Location

Not yet determined.

Land

A minimum 500 acres are needed for the plantation of grass.

Buildings

9,000 sq. ft. for the factory and 1,000 sq. ft. for administrative offices are required.

Labour

	<u>Plantation</u>	<u>Factory</u>	<u>Total</u>
Executive staff	-	4	4
Office staff	-	3	3
Labour	<u>16</u>	<u>29</u>	<u>45</u>
Total required	16	36	52

Wages scale

Skilled	US\$ 80/month
Semi-skilled	US\$ 48/month
Unskilled	US\$ 40/month.

Infrastructure

Depending on location.

Utilities

Electricity	(926,400 kWh)	US\$ 26,100 p.a.
Water	(428,400,000 gall.)	US\$ 20,600 p.a.
Heavy fuel oil	(33,000 gall.)	US\$ 6,600 p.a.

Raw material

Napier (*Pennisetum Purpureum*) is highly suitable to be planted because of its consistently high yields and its short harvesting cycle (45 days). The climate of Malaysia is suitable for the cultivation of Napier.

V. FINANCIAL ASPECTS

<u>Investment</u>	<u>US\$</u>		<u>Total</u>
	<u>Plantation</u>	<u>Factory</u>	
Land	300,000	22,000	322,000
Land preparation	81,000	-	81,000
Buildings	-	56,000	56,000
Machinery/equipment	16,000	200,000	216,000
Contingencies	<u>35,000</u>	<u>15,000</u>	<u>50,000</u>
	432,000	293,000	725,000
Working Capital			<u>15,000</u>
			740,000

The estimate is based on a previous study and requires up-dating.

Financing

No financial plan established as yet.

<u>a) Plantation Costs</u>	<u>US\$</u>
Fertilizer (3cwt/acre, 8 times at US\$ 7.40/cwt)	104,000
Irrigation	20,000
Labour	8,400
Depreciation	2,000
Contingencies	<u>6,600</u>
Cost per ton grass US\$ 3.14 - Total	141,000

<u>b) Processing Costs</u>	
Raw material (from (a))	141,000
Labour	17,500
Utilities	53,300
Overhead/Administration etc.	40,200
Depreciation	<u>30,000</u>
	282,000

Cost per ton grass meal : US\$ 31.33

Based on the proposed sales price the project yields an internal rate of return of around 35%.

VI. OTHER RELEVANT INFORMATION

Proponent

Name	Federal Industrial Development Authority (FIDA) (on behalf of State Development Corporations)
Address	P.O. Box 618 Wisma Damansara Damansara Height Kuala Lumpur.

Proposed Legal Structure

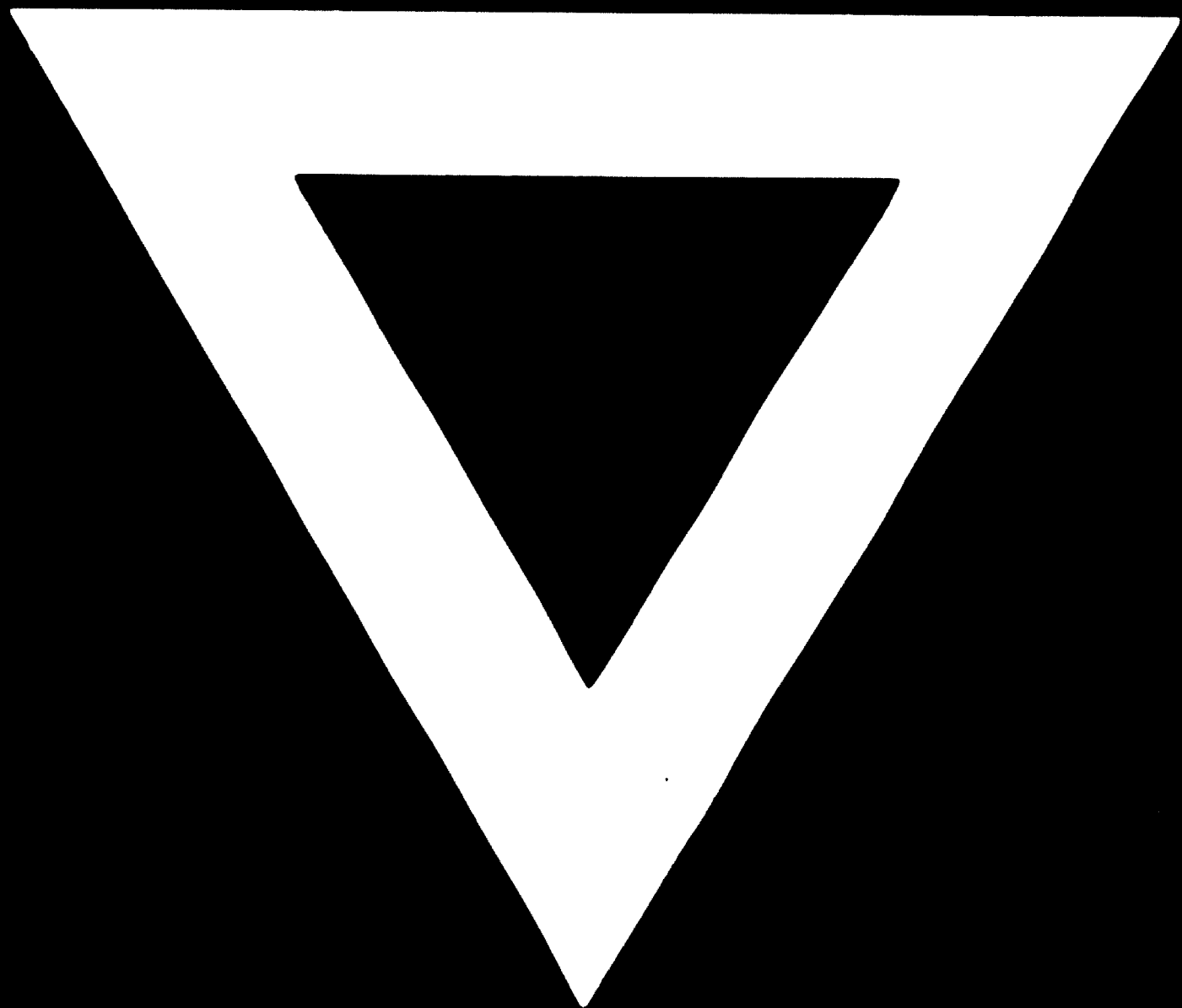
Private Limited Company

Documentation

A preliminary study on the Pelletisation of gross meal carried out by FIDA is available at the meeting on request.



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