Jute Geotextile: Stands Out in Versatility

It is virtually difficult to imagine modern geotechnical constructions without incorporating geotextiles which is now considered superior in versatility to its synthetic counterparts, says Abdul Malek who is Joint Secretary and Director (Marketing), BJMC.

UTE geotextile is a most versatile product made of jute by ABC Unit of Adamiee Jute Mills Ltd of BJMC. It may be considered to be highly prospective from marketing point of view. The main applications of jute geotextiles appertains to (a) Rural Road Reinforcement, (b) **Erosion Control and Vegetation** Establishment in earthing

slopes and (c) Agro-Mulching. There are certain characteristics of jute geotextiles such as biodegradability, in-plane drainage, absorption capacity and drapability which only the jute geotextiles possess and are lacking in geosynthetics. Initial high strength of jute geo-textile equal to that of a geosynthetic counterpart is attainable and it is essential to cater for handling and installation stresses and sustain itsell. Biodegradation brings about loss of strength and it is not a deterrent to most drainage applications. In vertical drainage applications the prefabricated drains kink due to excessive soil settlements and more so when dynamic impacts are applied. Synthetic prefabricated drains often rupture and cause the drain to be non-functional whereas jute drain can tolerate kinking without rupture and still permit efficient drainage to take place.



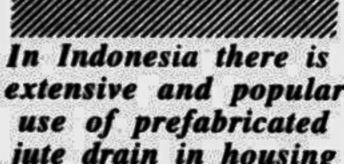
Jute geotextiles are ideally suited for drainage related applications in geotechnical engineering.

Jute geotextiles are ideally

suited for drainage related applications in geotechnical engineering. They may be designed to cater to the needs of specific problems in any of the woven or non-woven jute formulations or in any of the many possible composite forms with other natural or synthetic combinations. Applications in the form of prefabricated vertical and horizontal drainage as well as for slope and bank protection purposes, using jute/jute composite geotextiles, have proven to be dependable success. The jute geotextiles have got proven versatility in varied forms for application in civil engineering infrastructure projects. Research and successful applications over the past decade especially in erosion control and deep soil drainage projects in India. Singapore, Malaysia, Indonesia and Japan have confirmed the fact that jute geotextiles in their varied forms are a been especially to jute produc-

ing countries as much as to user countries of the developed world. Specially in Indonesia there is extensive and popular use of prefabricated jute drain in housing development, reclamation and highway pro-

Recently major applications in Japan are contributing to the popularity of jute drains. A few recent (1996) publications show successful applications of jute drains to projects in Indonesia (Pantai Mutiara Development) and Japan (Hiroshima and Yokohama). In Japan, Fukken Co Ltd and Professor H Aboshi of Hiroshima University are involved in jute drain applica-



use of prefabricated jute drain in housing development, reclamation and highway projects.

It has virtually become difficult to imagine geotechnical constructions without incorporation of geotextiles in modern construction practice. While geosynthetics dominate in all spheres of application, the natural jute geotextiles have now proven their mettle to match with geosynthetics in areas involving erosion, filtration, drainage and separation and such areas which constitute about more than 50 per cent of all geotextile applications. In such applications the initial strong desirable factors such as tensile strength, drainage capacity and non-clogging filtration ability count very much.

Jute geotextile and its components have been found to come to the rescue of fine grained soil and water related problems. Jute can be assembled and applied to act as a geotextile in its woven or non-woven forms. For certain specific applications jute geotextile may be used in a composite lorm for efficient operation in combination with other natural or synthetic materials.

In most of the drainage applications, the jute geotextile will have to perform also functions of filtration and separation. Jute geotextile applications take full cognizance of the fact that jute is biodegradable and its initial high strength is not sustainable. After installation in place, the strength drops very rapidly with time. But such a behaviour is not considered to be a drawback. Jute geotextile types are environment friendly, cost-effective and the longterm strength retention is not a criterion for satisfactory performance when applied to

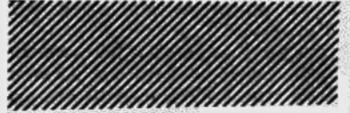
surface and subsurface drainage related problems.

Jute geotextiles in the woven or non-woven forms permit free flow of water both in normal and interplanar directions Recent trend in both developed and developing countries very clearly suggest that the role of jute geotextiles importantly exist in fluid control and solid control applications. Fluid control involves filtration and drainage, and solid control involves separation and clogging.

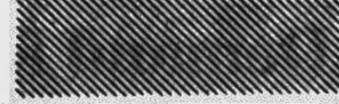
A variety of needle punched

non-woven geotextiles with jute and polypropylene blending (if necessary) can be produced for various applications. Durability, treatment also can be made to retard aging of jute geotextiles. Suitability of various kinds of blends with jute have been tried for filtration. separation, drainage and erosion control applications. The role of jute and coir geotextiles in the control of soil erosion through revegetation and the potential that exist for them in various areas are well known. Coir geotextiles and its composites with jute, sisal geotextiles and bamboo-jute/coir combinations have been used in several places particularly in South and Southeast Asia.

Technically feasible, environmentally compatible and economically viable usage in-



Recently major applications in Japan are contributing to the popularity of jute drains.



volving highways and rail-

ways, land reclamation and construction projects can be evolved replacing geosynthetics with jute geotextiles and their composites. The versatility of jute geotextiles and their formulations in adapting to filtration, separation and drainage application deserve attention especially by the jute producing countries. By so doing, these countries can gain in many ways such as promoting large scale usage of their own indigenous natural product, improving the infrastructural facilities to protect the environment saving foreign exchange, to mention a few.

The developing countries of Asia have opened up their economies and their rapid development requires almost instantaneous and unlimited infrastructure development in the areas of roads, railroads, airports, soil reclamation, drainage and other areas. The jute geotextiles potential in such projects has no bounds.

People's Participation in Planning Exercise: Experience from CPP HE Compartmentaliza-tion Pilot Project, under Approaches in people's participation, though complex and labourthe Ministry of Water some initially, can ultimately result into a positive people-project linkage, says Dr M Rafiqul Islam, Senior Consultant, Agricultural and Social Sciences Division, Bangladesh Engineering and Technological Services, and former Team Leader (National), Compartmen-

Resources, is being implemen-ted by the Bangladesh Water Development Board (BWDB) and coordinated by the Water Resources Planning Organi-sation (WARPO). The overall objective of the project is to test the concept of compart-mentalization which accommodates the components of controlled flooding and controlled drainage instead of full flood control measures. However, the strength, the uniqueness, the distinctive character of this project lies in placing peoples participation as the central element in all phases of project activities. What is actually meant by

people's participation? To some, it is the ultimate empowerment of people, to others, it is involvement of people through their elected representatives and to yet others it is simply involvement/participation of people in project activities. It is natural to find people differing on the true meaning of peoples participation, however it is and to find anyone who does not believe in the need for more 'people's participation' in development projects. In Compartmentalisation Pilot Project (CPP), people's participation is defined as involving people in all phases of project cycle, with the aim that they will operate and maintain this

The objective of this paper is to present experiences from CPP in ensuring people's partic ipation in planning exercises.

Modus Operandi

A very basic question the project had to deal with early on was, who are the people for whom one should encourage participation. After many discussions, from among 10 or different cial/professional/gender based groups, the project decided to involve four interest groups, i.e. farmers, fishermen, landless and women. Boatmen were not considered as a seperate interest group as they numbered only 12-50 within the project area.

In 1992, in order to initiate the process of people's participation, the project had to conceptualize on its own a workable methodology (CPP, TNT 92704. April 1992). The draft of People's Participation Guidelines was available much later in 1994. For involvement of people during planning, the project, at that time, has recognised three defined pha-

The Needs Assessment Consultation Institutionalisation

As soon as a modus operandi, was developed in 1992, the concepts came under opposing criticisms:

One group criticised the approach for adopting peoples participation at a grass root level which might not be sustainable in limited project re sources. This group proposed limited discussion, at the most to elected representative level

The NGO-aligned group criticised incorporation of the farmers and fishermen at same level as women and landless. They feared influential farmers would dominate the process of peoples participation.

Some of these criticisms were accommodated during the process of concept development. However, the project, being the first one to attempt this approach in the water sector, soon found itself with few supportive

Women participating in Compartmentalisation Pilot Project (CPP), Tangail.

guardians. All these criticisms. however, diversified the dimensions of thinking and the project continued in its attempt to gather experience.

talisation Pilot Project, Tangail.

Needs Assessment Phase

The objectives of the needs assessment were: to get a broad interdisciplinary, descriptive overview of the existing situation; to identify the existing water management situation and constraints, and to find out people's opinion on potential solutions, structural and nonstructural, to overcome the constraints identified. A multidisplinary team,

consisting of a Civil Engineer. an Agronomist, a Fisheries Specialist, two Sociologists male and female) and an environmentalist, visited randomly selected villages within the project area. Then the Agronomist interviewed a group of farmers. the Sociologist (female) a group of women and the others, likewise. Group interviews were useful to get an idea about the consensus of the information. A detailed checklist was used to interview a group. When a few more villages within a pre-defined subcompartment were covered, the situation, probsolutions and conflicts were discussed and debated within the multidisciplinary team to develop a preliminary plan (Needs Assessment Intervention - NAI matrix) for each subcompartment. This NAI matrix analysed both positive and negative impacts of interventions proposed.

Out of 218 villages. Needs Assessment Surveys were done in 96 villages within a period of four months.

Lessons learned and recommendations: The needs assessment survey was found very useful to get the view of different interest groups. During group interviews, it was often difficult to separate water related issues from the broader issues of health, education, communication etc. Needs assessment recognised

the importance of local knowledge and valued locally proposed solutions. In the CPP. more than 55 per cent of the planned interventions were proposed directly by local peo-Concise reporting was found

essential so that key-elements could easily be recognised. Reporting of needs assessment at Sirajganj was 20 per cent of total of Tangail

People's assessment of problems focussed towards the hydrological situation of the area over the years. Assessment over two different years is recom-

Consultation Phase

The objectives of the consultation phase were : to discuss the preliminary plan (Needs Assessment Intervention Matrix) in a structured and organised meeting; to get feedback on proposed interventions; to stimulate the involvement of PAPs and bring locally elected Union Parishad in the process of involvement Like in the Needs

Assessment Phase, the multidisciplinary team participated in a series of consultation meetings. During this phase, prelimmary consultations were conducted seperately with different interest groups followed by a combined meeting involving representatives selected from those different preliminary consultation meetings. In case a conflict was apparent from the preliminary consultation meet ings, a follow-up meeting was often organised before a combined meeting.

At the end of the combined meeting, the preliminary plan (NAI-matrix) for each subcompartment was modified in such a way that it was commonly acceptable to people of the area concerned. An approval was usually obtained to proposed interventions so that implementation procedures could be initiated.

A total of 195 consultation meetings were held within the

project area of only 130 sq. km. In total, 2745 farmers, 361 fishermen, 3166 women and 1615 landless people attended initial consultation meetings and 1643 persons attended the community, follow up and combined

Institutionalisation of **People's Participation** Phase

During the initial prepara tion of implementation procedures, a separate effort was initiated for the institutionalisation of people's participation. Basic aim was to have:

- a three tier system of representation and management. i.e. chawk, subcompartment and compartment levels. The project area (a compartment) is divided into 5 clusters and 16 subcompartment to accommodate 142 chawks Subcompartment level institution (Sub Compartmental Water Management Committee-SCWMC) which represents a manageable hydrological unit. was considered central to water management decisions; four parties to participate

and contribute: a) interest groups (farmer, fishermen women: landlessh b) technical department (BWDB, DAE, BRDB etc.); c) local government Union Parishad), and d) NGOs. Chawk Committees usually

consist of farmers only. Out of 5 clusters, the above procedures were followed in 3 clusters (IB. II and III). A number of limitations were identified and lessons learned were accommodated. However, the major limitation identified was absence of linkage between consultation and institutionalisa tion phases. As these two phases were implemented over more than a year apart, it was difficult to organise same people attend these meetings and a continuity in discussion/dialogue could not be maintained. Hence, a new approach was followed in cluster

A new approach: consultation and institutionalisation

phases merged together

The procedures remained the same as described above except that during initial consultation meetings with farmers, chawk committees were formed and during combined meetings. SCWMCs were formed.

Lessons learned from new approach: consultation and formation of different committees simultinously consumed less time and less man power; awareness of people about pro-ject interventions before implementation rose; conflicts minimised between different target groups.

Criticisms and Limitations

Despite the efforts described above, people's participation activities of the project were severely criticised. The reason lies in the fact that people differ, as mentioned earlier, on meaning of peoples participation. Everyone analyses from one's own angle. Peoples participation in a process approach has completely different modus operandi than that in a project approach. Even in a project approach, emphasis and priorities could be different.

One group of critics maintained that socially vulnerable group like landless or women are not participating in a true sense. Recognising this, the project has taken steps to develop participatory skills of women members through special net work meetings where they receive additional training on discussion skills. This is one of the attempts to enhance empowerment through which social changes happen gradually. Critics who have already started to measure the level of empowerment of women as an impact of this project even in 1995, are simply 'day dreamers of the process of social changes

However, the above mentioned study (led by Dr Amur Rahman) has rightly recognised these limitations as "...... there are serious structural and administrative constraints within which it (the CPP) has been operating. It is indeed very difficult for a single project to enhance the level of peoples participation. The CPP has been operating within a centralised political system with virtually no mechanism of local governance and tradition of shared decision making. There is no strong local government in rural Bangladesh to enable an environment of peoples participation." This realisation in 1995 among critics of this project is itself a positive achievement of the efforts of the project. The take the stiggest!

Conclusions Approaches in people's par-

ticipation, though complex and aboursome initially, resulted in a positive people-project Locally formed water man-

gement committees have taken responsibilities for operation of all water control structures according to the need of the area. This minimised conflicts substantially and conflicts were resolved locally. An attitude of ownership is gradually developing. Planning exercise has be-

come a continuous process to accommodate often changing need or hydrological situation. These changes or flexibilities are essential in any project involving people.

The Daily Star Entertainment Guide

Thursday 7th November (All programmes are in local time. There may be changes in the programmes)

BTV

3:00 Opening an nouncement, Al-Quran Programme Summary 3:10 News in Bangla 3:15 Patriotic Song 3:20

Selected pro grammes from TV archive 4:20 Cartoon film : Tom & Jerry 4:50 TV Debate 5:00 News in Bangla 5:25 From the Heart of Bangladesh 6:30 Religion & Life 6:50 Nazrul Song 7:00 The News 7:25 Special programme on November 7 8:00 News in Bangla 8:25 Glimpses from JS 9:00 Arabian Nights 9:30 Musical programme features Haimanti Shukla 10:00

The News 10:30 Glimpses from JS 11:00 The Switch 11:30 News in Bangla 11:35 Friday's programme summary 11:40 Close down

BBC

6:00am BBC World News 6:10 Newsnight 7:00 BBC Newsroom inc World Business Report/Asia Today/24 Hours 10:00 BBC World Headlines 10:05 World Focus: Around The World in 80 Days 11:00 BBC Newsday 2:00 BBC World Headlines 2:05 World Focus: Wheeler On America 3:00 BBC World News 3:30 Time Out: Holiday 4:00 BBC Newsdesk 6:00pm BBC World Headlines 6:05 World Focus: Horizon 7:00 BBC World News 7:15 World Business Report 7:30 BBC Newshour Asia and Pacific 8:30 Time Out: Jeremy Clarkson's Motorworld 9:00 BBC World Headlines 9:05 Around The World in 80 Days 10:00 BBC World News 10:30 Time Out: Film '96 11:00 BBC World News 11:30 Time Out: Floyd's American Pie 12:00 The World Today 2:00 BBC World Headlines 2:05

World Focus: Assignment 2:50 Earth Report 3:00 BBC World row's World 4:00 BBC World of '24 Hours

CHANNEL V

Rock 12:00mn Jump Start VJ mand VJ Trey 3:00 Big Bang VJ Alessandra 4:30 BPL Oye

STAR PLUS

The Sullivans 7:00 Aerobics Oz Style 7:30 STAR News 8:00 SKY News 8:30 STAR News 9:00 SKY News 9:30 Aerobics Oz Style 10:00 Today's Gourmet 10:00 E! TV 11:00 Kate & Allie 11:30 The Oprah Wintrey Show 12:30 21 Jump Street 1:30 Santa Barbara 2:00 The Bold & The Beautiful 3:00 Khandaan 3:30 Tehkikaat 4:00 Home and Away 4:30 Lost In Space 5:30 Adventures Of Black Stallion 6:00pm Kate & Allie 6:30 Today's Gourmet 7:00 Destinations "Comwall" 7:30 STAR News (Hindi) 8:00 Small Wonder 8:30 The Bold & The Beautiful 9:00 Ghutan 9:30 STAR News 10:00 Fawity Towars 10:30 The X Files-11:30 The Bold & The Beautiful 12:00 Santa Barbara 1:00 Baywatch Nights 2:00 21 Jump Street 3:00 Quincy 4:00 The Oprah Winfrey Show 5:00 Barnaby

News 3:30 Time Out: Tomor-Report inc. World Business Re-

6:00am Frame By Frame 7:00

Rewind VJ Sophiya 8:00 Frame by Frame 9:00 Big Bang VJ Alessandra 10:30 Frame By Frame 11:30 The Vibe VJ Luke 12:00 Rewind VJ Sophiya 1:00 By Demand VJ Trey 2:00 Frame by Frame 2:30 First Day First Show 3:00 BPL Oye 4:00 Planet Ruby 4:30 By Demand VJ Trey 5:30 Music Update Tokyo 6:00pm Rewind VJ Sophiya 7:00 Big Bang VJ Alessandra 8:00 Planet Ruby 8:30 The Vibe 9:00 Videocon Flashback 9:30 Top of the Pops 10:00 First Day First Show 10:30 Soul Curry 11:00 Classic Trey 1:00 Haysah 2:00 By De-

6:00am Home and Away 6:30 ters Final Day Highlights



Subtitles) 9:30 Family: A Thou-

sand Heroes 12 (Arabic Subti-

ties) 11:30 Western: Lone Wolf

Macouade 12 (Hindi Subtitles)

1:30 Adventure: Lady of Bur-

lesque PG (Hindi Subtitles) 3:30

Documentary: Charlie Chaplin!

A Celebration 12 (Hindi Subti-

tles) 5:30 Comedy: Mr Saturday

Night 15 (Arabic Subtitles) 7:30

Family: Dusty G (Hindi Subtitles)

9:00 US Top Ten 9:30 Ro.

mance: No Greater Love 11:30

Thriller Rainbow Drive 18

(Arabic Subtitles) 1:30 Comedy:

When Pigs Fly 18 3:30 Horror:

The Omen 18 (Arabic Subtitles)

5:30 Action: The Great Texas

Dynamite Chase 18 (Arabic

ZEE TV

6:00 News 6:30 Jagran 7:00

ZED 8:30 All Out 9:00 Ghoomta

Aaina 9:30 HFF 12:00 17

Shirley Road 12:30 Aur Ek

Minute 1:00 ZED 1:30 Asian

Sky Shop 2:30 Tara 3:00 Ku-

rukshetra 3:30 Captain Cook

Shahi Dawat 4:00 Helpline

4:30 Mere Ghar Ana Zindagi

5:00 ZED 5:30 Teer Kaman

6:00 Hum Honge Kamyaab

6:30 Ad Mad Show 7:00 Man-

STAR SPORTS 6:00am World Cup Table Ten-

nals From Nimes, France 7:30 1996 Asian Under 19 Championships 3/4 Place From: S Korea 9:00 1996 Asian Under 19 Champs, Final From S Korea 10:30 Spanish F'ball League H/L 11:00 Live Singer Champions Trophy 1996 New Zealand v Sri Lanka 2:30 Cricket Hall Of Fame 3:00 Live Singer Cham-pions Trophy 1996 New Zealand v Sri Lanka 7:06 World Wrestling Federation Raw 8:00 Spanish F'ball League H/L 8:30 SDD NBA Japan Games 1996 Orlando Magic vs New Jersey Nets Fm Tokyo, Japan 10:30 Futbol Mundial 11:00 US PGA Tour Merrill Lynch Shootout Day 4 H/L 12:00 World Windsurfing H/L 1:00 World Wrestling Federation Raw 2:00 Gillette World Sport Special 2:30 International Motorsports News 3:30 1996 Omega Tour Affred Dunhill Mas-

STAR MOVIES

7:30am World Cinema It Started With Here 15 (English

asi 7:30 Gaane Anjaanie 8:00 Tumhare Liya 8:30 Colgate Gel Yoodle Aeoo 9:00 Gopaljee 9:30 Dastaan 10:00 Umeed Ep-18 10:35 News 11:00 Mano Ya Na Mano 11:30 Hum Paanch 12:00 Tara 12:30 Parampara 1:00 No Problem 1:30 Been Ke PG 2:00 Arabic Programme 2:30 TMM EL TV

07:30 Pyar Hi Pyar 08:30 Jee-

van Ke Rang 09:30 Dance

Dance 10:30 The Music Show-Real Countdown11:00 Nukkad 11:30 Shatrani 12"00 Top of the Tops 12:30 Brigadier Bal-want Bhawan 1:00 Suhana Safar 1:30 Nazrane 2:00 Special 3:00 Amar Prem 3:30 Chehre 4:00 Akanksha 4:30 Song Yatra 5:00 Dear EL 05:30 Special 6:30 Sorry Meri Lorry 7:00 Hit Thi Hit Hai 7:30 Hakke Bhakke 8:00 FAUJI 8:30 Liberty Public Demand 9:30 Gambier 10:00 Peoples Club 10:30 Humrahi 11:00 Casper Number One 11:30 Film: Chaat 12:00 Newsline 12:30 Special 1:30 Tarane Aur Fasane 2:30 Party

PTV

8:00am Tilawat Aur Tarjuma/

Hamd/Naat 8:20 Cartoon 8:30 Khabrain 8:45 Cut Piece 9:20 Aahang & Roshni 9:45 Phool Chandi 10:05 Sona Chandi (Drama Serial) 10:30 Buttons & Rustys (Eng. Film) 10:55 Milli Naghma 11:00 Khabrain 11:10 Aabshaar (Music Programme) 11:55 Tele Play (Drama Serial) 12:45pm Qawaali 12:55 Quran-e-Hakeem & Bismillah 1:15 Mugaddar (Drama Serial) 2:00 Putihar (Drama Serial) 2:45 Perspective & Health Forum 3:40 Taleemi Maloomat 4:35 Aurat Aur Qanoon 5:05 Home Economics 5:25 Humaray Saath 5:55 Varna (Drama Serial) 6:25 Aiou Courses 7:05 Muqabil Hai Aaina 7:20 Ainaik Wala Jinn 7:45 English News 8:05 Jawaan Sangeet 8:45 Eendhan (Drama Serial) 9:00

Break for Headline News 10:00

News 10:35 Mast Nath Sirvo 11:15 Urdu Feature Film & Khas Khas Khabrin Close

SONY ET 8:30am Yaadon Ki Baarat 9:00

The Three Stooges 9:30 Dennis The Menace 10:00 | Dream

Of Jestine 10:30 Surf Wheel Of Fortune (Game Show) 11:00 Ghaav (Serial) 11:30 Faasle (Serial) 12:30pm Kismal (Serial) 1:00 Zamin Asman (Senal) 1:30 Mere Message Men Geet 2:30 Cine Matinee-Hindi Feature Film 5:00 O'Maria (Serial) 5:30 The Three Stooges 6:00 Mere Message Men Geet 6:30 Dennis

The Menace 7:00 Premer 7:30

Dream of Jeannie 8:00 Surf Wheel Of Fourtune (Game Show) 8:30 Senai 9:30 Hospital (Serial) 10:00 Cover Story Hostel (Thriller Senal) 10:30 Ja nee Kaha Mera Jigar Gaya Ji (Serial) 11:00 The Young And The Restless 11:30 Yeh Sadi Nahi Ho Sakti (Serial) 12:00 Pehli Mulakat 12:30 Sunday Ki Sunday 1:00 Nirlop Rasoi Show

1:30 Surf- C -- Of Fourtune (Game Show 2:00 Premier 2:30 Closed

DD 7

10:30 Janmadin 10:35 Classical Music 11:00 Dance 12:00 ETV Programme 12:30 Kalkata Bishitra 1:00 Janani (Serial) 2:30 Darpan (Senal) 3:00 Eto Tuku

5:05 Nepali Programme 5:30 News 5:35 Sahithya Samiskriti 6:00 Palli Katha 6:30 Chakrir Khabar 6:55 (Serial) 7:30 Bangia Sambad 8:00 Sur Sangeet 8:30 Deaw (Serial) 9:00 Janani (Serial) 9:30 Swapner Bazar (Serial) 10:00 Bengali Movie Club Film Show 1:00 Closed

NEITHER COULD !!

Basha (Serial) 3:30 Shreoshi

Garfield ®







TOM and JERRY



by Jim Davis