

ABBREVIATIONS

ACCE	African Council on Communication Education
AGIS	Agricultural Geographical Information System
ARC	Agricultural Research Council
CBO	Community-based organisation
CD-rom	Compact Disk - read only memory
CIC	Community Information Centre
COMTESCA	Communication for Technological Advancement
CSIR	Council for Scientific and Industrial Research
CV	Curriculum Vitae
DC	Development Communication
DSC	Development Support Communication
DWAF	Department of Water Affairs and Forestry
EU	European Union
FAO	Food and Agriculture Organisation
FES	Friedrich Ebert Foundation
GKD model	Global Knowledge for Development model
ICT	Information and Communication Technologies
IDRC	International Development Research Centre
IT	Information Technology
LVA	Loxton Venn Associates
MACIS	Mamelodi Communication and Information Services
MPCC	Multi Purpose Community Centre
NDA	National Department of Agriculture
NGO	Non-governmental Organisation
NPDALE	Northern Province Department of Agriculture, Land and Environment
NPFA	Needs, Problems, Fears and Aspirations
NTK	Northern Transvaal Co-operation
PC	Participant Communication
RASCOM	Regional African Satellite
SAAU	South African Agricultural Union
SAFEX	South African Futures Exchange

SATRA	South African Telecommunications Regulatory Agency
UK	United Kingdom
USA	United States of America
UNEP	United Nations Environmental Program
UNESCO	United Nations Educational Scientific and Cultural Organisation
USA	Universal Service Agency
VCR	Video Cassette Recorder
WGV	Watergebruikersvereniging
WRC	Water Research Council
WTO	World Trade Organisation
WUA	Water Users Association

REFERENCES

ADAM, L. 1996. Africa on the line?

Online: <http://www.fao.org/waicent/faoinfo/sustdev/Dodirect/DoengB04.htm>. Accessed: 28 June 2000.

AGUNGA, R. A. 1998. Communication for development in Africa – a clarion call. *Communicare*, 17(1):28.

ALEMNA, A A. 1999. The impact of new information technology in Africa. *Information Development*, 15(3):35.

ANDERSON, J., VAN CROWDER, L, DION, D. & TRUELOVE, W. 1999. Applying the lessons of participatory communication and training to rural telecentres.

Online: <http://www.fao.org/waicent/faoinfo/sustdev/Cddirect/Cdan0010.htm>. Accessed: 28 June 2000:3.

ANDREASEN, A R. 1995. *Marketing social change*. San Fransisco: Jossey-Bass.

ASCROFT, J. & MASILELA, S. 1989. *From top-down to co-equal communication: Popular participation in development decision-making. Proceedings of conference*. Pune, India: University of Poona:16.

BAGLEY, M. N., MANNERING, J. S. & MOKHTARAIN, P. L. 1994. *Telecommuting centres and related concepts: a review of practice*. Research report UCD-ITS-RR-94-4 prepared for the Federal Highway Administration and the California Department of Transportation Office of Traffic Improvement. California: Davis: University of California.

BALIT, S. 1996. Listening to farmers: Communication for participation and change in Latin America.

Online: <http://www.fao.org/waicent/faoinfo/sustdev/Cddirect/Cdan0018.htm>. Accessed: 28 June 2000:1-6.

BENJAMIN, P., STAVROU, A., BURTON, P. & McCARTHY, C . *Telecentre 2000, synthesis report*. 2000. DRA development. South Africa: Link Centre:8.

BEYERS, A. 1996. Communities address barriers to connectivity. *Rural clearing house digest on rural telecommunications*, 3(1):2.

Online: <http://www-personal.ksu.edu/~rcled/publications/tele/teledigest.html>. Accessed: 28 June 2000.

BIE, S. 1996. Development communication and the Internet: Introduction. *Online:* <http://www.fao.org> Accessed: 28 June 2000.

BOON, J. A. 1992. Information and development: Towards an understanding of the relationship. Development facts. *Suid-Afrikaanse Tydskrif vir Biblioteek-Inligtingkunde* 60(2):64.

BORDENAVE, J. D. 1994. Participatory communication as a part of building the participative society. In: White, S A., Nair, K S. & Ascroft, J. (eds.). *Participatory communication: working for change and development*. New Delhi: Sage:35.

BRITZ, J. J. & BLIGNAUT, J. N. 1999. An ethical perspective on information poverty. The moral and legal challenges of the information era. Pretoria: University of Pretoria.

Centre for Information Development, Centre for Occupational Ethics. BRUNDTLAND, G H. 1989. Sustainable development: An overview. *Development* 2(3):13.

BURTON, S. 1998. Contemplating the future of “development communication” in South Africa today. *Communicare*, 1(1):88.

CAMPBELL, C. J. 1995a. *Community technology centres: exploring a tool for rural community development*. Amherst: University of Massachusetts.

Online: <http://www-unix.oit.umass.edu/~ruralma/CTC.html>. Accessed: 28 June 2000.

CHRISTENSEN, P. R. 1997. Educational technology and educational reform: lessons for South Africa. *Proceedings of international conference*. December 1997, University of Cape Town, Cape Town.

COLETTA, N. J. 1980. Tradition for change: indigenous socio-cultural forms as a basis for nonformal education and development. In Kidd, R. & Coletta, N.J. (eds.). *Tradition for development. Indigenous structures and folk media in non-formal education*. Proceedings of the 1980 conference Tradition for development, Stuttgart, Germany: 17.

CONRADIE, D. P. 1998. Using information and communication technologies (ICTs) for development at centres in rural communities: lessons learned. *Communicare*, 17(1): 97.

- CONWAY, A. 1995. Reports from workshops. In: I. Bertin (ed.). *Teleworking in Ireland: Proceedings of conference*. Minane Bridge, Co., Telework, Ireland. *Online*: <http://www.csu.edu.au/research/crs/sai/reports.htm>. Accessed: 28 June 2000.
- CROWDER, L. 1991. Is there a communication media bias in development projects? *Journal of Applied Communication*, 75(2):2.
- DAVIDSON, J.D. & REES-MOGG, W. 1997. *The sovereign individual. The coming revolution - how to survive and prosper in it*. London: Macmillan.
- DECOCK, A. 1996. Wireless networks. *Online*: <http://www.fao.org/waicent/faoinfo/sustdev/Dodirect/DoengB05.htm>. Accessed: 28 June 2000.
- DIDIZA, T. 2000. *Agricultural News* (6). Directorate Communications, Department of Agriculture: South Africa:1.
- EPSTEIN, N. & BRUCE, B. 1995. *The last mile: Bringing the Information Superhighway to the house at the end of the line*.
Online: <http://128.138.129.27/aerie/resource/section4/lastmile.htm>. Accessed: 28 June 2000
- ERNBERG, J. 1999. Telecommunications for sustainable development.
Online: <http://www.fao.org/waicent/faoinfo/sustdev/Cddirect/Cdre0028.htm>. Accessed: 28 June 2000:1.
- ESKOM. 1995. *You're not on your own. A management guide for development organisations in South Africa*. Unpublished guide. South Africa.
- FAO. 1987. *Experts consultation on development communication*. Rome: FAO: 2.
- FAO. 1990. The Internet and rural development: Recommendations for strategy and activity.
Online: <http://www.dao.org/waicent/faoinfo/sust.dev/Cddirect/CDDO/chapter/htm>. Accessed: 28 June 2000.
- FRASER, C. & VILLET, J. 1994. *Communication: A key to human development*. Rome: FAO.

FUCHS, R. 1999. If you have a lemon, make lemonade: a guide to the start-up of the African multipurpose community telecentre pilot projects. Submitted to the International Development Research Centre.

Online: <http://www.idrc.ca/acacia/outputs/lemonade/lemon.html>. Accessed: 18 January 1999.

HALLORAN, J.D. 1987. The international research experience. Jayaweera, N. (ed.). *Rethinking development communication*. AMIC, Singapore:129.

HAMELINK, C. 1998. New information and communication technologies: Social development and cultural change. *FID Bulletin*:23

HAMMER, M. 1994. Why projects fail. *The FAO review*. 21(1):32.

INYANG, S. 1996. Stuck in the ruts on the Information Superhighway. *Online:* <http://www.fao.org/waicent/faoinfo/sustdev/DOdirect/DOengB03.htm>. Accessed: 28 June 2000.

JAYAWEERA, N. 1987. Introduction. Jayaweera, N. (ed.) *Rethinking development communication*. Singapore: AMIC:vii.

JAYAWEERA, N. & AMUNUGAMA, S. (eds.) 1989. *Rethinking development communication*. Singapore: AMIC:xix.

LAZERFELD, P., BERELSON, B. & GAUDET, H. 1944. *The people's choice*. New York: Sloan & Pearce.

LEACH, A. B. 1999. *The provision of information to adults in rural KwaZulu-Natal, South Africa, by Non-governmental organizations* (49). Germany, Libri:71.

LERNER, D. 1958. *The passing of traditional society. Modernizing the Middle East*. New York: Free Press.

LOUW, E. 1995. Considerations on some possible communication policies for development agencies. *Journal of Development Communication*, 6(1):56.

LOWREY, P. 1995. People's participation: FAO's answer. UNESCO, 1995. *Culture and agriculture. Orientation texts on the 1995 theme*. Paris: UNESCO:9

MALAN, C. W. 1996. *Towards a research framework for development support communication within a multicultural context*. DESCOM: Position Paper no. 1. Pretoria: HSRC:16.

- MALAN, C. W. 1998. Development communication as part of culture. *Communicare*, 17(1):49.
- MALAN, C. W. 1999. ICTs in African development, with a focus on telecentres. Abstracts from Malan, C. 1999. *Ytech Network - a youth information and training network*. Unpublished position paper. *Online*: <http://www.hsrc.ac.za/ytech/index.html>. Accessed: 15 Nov. 1999.
- MALAN, C. W. & GROSSBERG, A. 1998. The socio-cultural contexts of development communication at the Tswaing Crater - a South African case study. *Communicare*, 17(1) June:160.
- McLUHAN, M. 1964. *Understanding media*. New York: Signet.
- McNAMARA, R S. 1973. Annual address by President. *Annual proceedings of the Board of Governors, IBRD*. Washington, DC: World Bank.
- MELKOTE, S R. 1991. *Communication for development in the third world*. New Delhi: Sage.
- MODISAME, E. 2000. Personal communication as manager of MACIS. April 2000.
- MODY, B. 1991. *Designing messages for development communication. An audience participation-based approach*. New Delhi/Newbury Park/London: Sage.
- MOYO, O.T. 1994. Grass-roots activities and case studies in information provision to rural communities. *Proceedings of the seminar on information provision to rural communities in Africa*. Gabarone, Botswana, 22-25 June 1994. Uppsala University library:58.
- MUKASA, S. G. 1998. Towards a global knowledge for environmentally sustainable development agenda in 21st century Southern Africa. *Communicare*, 17(1):1.
- NAIR, K. S. & WHITE, S A. 1994. *Participatory development communication as cultural renewal*. In: White, S.A., Nair, K.S. & Ascroft, J. (eds.). *Participatory communication: working for change and development*. New Delhi: Sage:138.
- O'SULLIVAN, T., HARTLEY, J., SAUNDERS, D. (ed.), MONTGOMERY, M. & FISKE, J. (ed.). 1994. *Key concepts in communication and cultural studies* London: Routledge.
- RAMINEZ, R. 1995. Understanding farmers' communications networks: An experience in the Philippines. *Online*: <http://www.panasia.org.sg/ius/conf/webdr>. Accessed: 17 Nov. 1997.

RICHARDSON, D. 1996. Applying lessons of participatory communication and training to rural telecentres.

Online: <http://www.fao.org/waicent/faoinfo/sustdev/Cddirect/Cdan0010.htm>. Accessed: 28 June 2000.

RICHARDSON, D. 1997. The sustainability of participatory communication. *Online:* <http://www.panasia.org.sg/ius/conf/webdr>. Accessed: 17 Nov. 1997.

RICHARDSON, D. & PAISLEY, L. (eds.) 1999. Advancing telecommunications for rural development through participatory communication.

Online: <http://www.fao.org/waicent/faoinfo/sustdev/Cddirect/Cdre0025.htm>. Accessed: 28 June 2000.

RIVERA, F G. & ERLICH, J L. 1995. *Organizing with people of color: a perspective*. Illinois: F.E. Peacock.

ROGERS, E. M. 1962. *Diffusion of innovations*. New York: Free Press.

ROGERS, E. M. 1973. *Diffusion of innovations*. 3rd Ed. New York: Free Press.

ROGERS, E.M. 1986. *Communication technology: the new media in society*. New York: Free Press.

ROGERS, E. M. 1995. Communication technology: the new media in society. *Communicatio*, 21(1):85.

ROKEACH, M. 1966. Attitude change and behavioral change. *Public opinion quarterly*. 30(4):520.

ROLING, N. & ENGEL, P. G. H. 1991. *The development of the concept of agricultural knowledge information systems (AKIS): implications for extension*. Rivera, W. M. & Gustafson, D. J. (eds.). New York: Elsevier.

ROMAN, R. 2000. *Towards a training framework for telecentre managers*. New York: Cornell University.

ROSENBERG, D. 1993. Rural community resource centres: a sustainable option for Africa? *Information development*, 9(1/2):29.

SERVAES, J. 1995. Development communication – for whom and for what? *Communicatio*, 21(1):39.

- SHANMUGAVELAN, M. 2000. Information technology (IT) in developing nations. *Online*: <http://www.fao.org/waicent/faoinfo/sustdev/Cddirect/Cdre0050.htm>. Accessed: 28 June 2000.
- SNYMAN, M. & SNYMAN, M.M.M. 2000. *The potential role of information resource centres to create a true, open, democratic society in South Africa. Proceedings of BOBBCATSSS 2000 symposium*. Vulniu, Luthiana. 29 – 31 January 2000:3.
- SOUTH AFRICA. 1996. White paper on science and technology.
- STURGES, P. & NEILL, R. 1998. *The quiet struggle: information and libraries for the people of Africa*. 2nd ed. London: Mansell.
- TOMASELLI, K. 1995. Urban bias and the media. *Matlhseedi*, 14(3):3.
- UNESCO. 1996. *UNESCO and the information society for all. Proceedings of the G7 ISAD Conference*, Midrand, South Africa, May 1996:15.
- VAN LILL, J. 2000. Soek vinnig inligting op die Internet. *Landbouweekblad*, 2 June.
- WAKELIN, F & SIMELANE, S. 1995. *The provision of information to adults in rural KwaZulu-Natal, South Africa*, (49). South Africa: Libri:41.
- WOODS, B. 1996. A public good, a private responsibility. *Ceres*. 28(2). Rome: FAO. *Online*: <http://www.fao.org/waicent/faoinfo/sustdev/Dodirect/DoengB02.htm>. Accessed: 28 June 2000.
- WYLEY, C. 1995. Drowsy managers of a crisis? librarians and information provision of rural communities. *Innovation* 11:4.
- XAVIER INSTITUTE. 1980. *Development from below*. Ranchi: Xavier Institute for Social Service.
- ZONGO. 1996. *24 Project position paper: A national youth information and training network*. Pretoria: HSRC.

ABSTRACT

A pilot project for the development of guidelines for the establishment of a telecentre in a rural agricultural community in South Africa

by

D. M. van der Merwe

Study leader: Prof. M. E. Snyman

Co-leader: Prof. C. W. Malan

Degree: Magister Artium

The aim of the research was to produce guidelines for the introduction of ICTs to a rural agricultural community in South Africa by means of a telecentre. There are no existing guidelines for the introduction of these communication tools to a rural agricultural community. The research is important as many of the existing telecentres failed due to the fact that no preproduction audience research was undertaken before these telecentres were established. This lack of a proper needs analysis is regarded as an important reason for the failure of most of these telecentres, as they were implemented as 'boxes from the sky' - the needs of the specific community were not identified, analysed or taken into consideration and were also not communicated to the specific community, in order to consider which technologies and what kind of information were needed by the community to become self-sustainable. The specific needs of the communities are not addressed by the current telecentre initiatives.

The research was conducted within the DSC paradigm, and the culture of the rural agricultural community of Thabina formed a central part of the preparatory, as well as the demonstration phases of the pilot project. The practical needs and culture of the agricultural community of Thabina were investigated and formed the basis of the pilot project. The information to be obtained from the technology was demonstrated and was based on the needs as determined by the research. The research itself was done by means of participant observation during interaction with the various stakeholders.

The result of the pilot project is that, due to the fact that the consent of the Development Committee at Thabina was obtained after a demonstration of the various ICTs, a telecentre will be established in due course. The practical needs expressed by the Development

Committee during a survey conducted by Loxton Venn Ass. (LVA), will also be addressed by means of the ICTs on which the telecentre will be based, in order for the community of Thabina to become self-sustainable. The agricultural community at Thabina will then have access to agriculture related information, e.g. irrigation, product prices, market information, etc. As a Water Users Association (WUA), they will also be able to communicate with other agriculture-related organisations such as the government departments, financial institutions, markets, co-operatives, other WUAs and research institutions.

Conclusions firstly comprise the fact that it became clear that the concept of a telecentre should be explained to the specific community before the project could commence. A thorough study of the needs of the community should also be undertaken, to determine which of the ICTs, should be used and what type of information that could be obtained from these technologies would address the specific needs of the community to be developed. It is also a good practice to introduce the various ICTs to the community by means of a demonstration, as ICT is a new and unknown concept to a rural community, with which it is totally unfamiliar. The importance of having based the project on the DSC paradigm, as well as the interaction with the role-players by means of participant observation, was evident throughout the research. The DSC paradigm forms the basis for the success of any research aimed at development.

EKSERP

'n Loodsprojek vir die ontwikkeling van riglyne vir die daarstelling van 'n telesentrum in 'n landelike landbougemeenskap in Suid-Afrika.

deur

Daisy van der Merwe

Studieleier: Prof. M.E Snyman

Mede-studieleier: Prof. C.W. Malan

Graad: Magister Artium

Die doel van die navorsing was om riglyne daar te stel vir die implementering van inligting- en kommunikasietegnologieë ("ICTs") in 'n landelike landbougemeenskap in Suid-Afrika deur middel van 'n telesentrum ("telecentre"). Daar is tans geen riglyne vir die uitvoer van 'n behoeftebepaling vir die bekendstelling van hierdie kommunikasiemiddele in 'n landelike landbougemeenskap nie. Die navorsing is belangrik in die sin dat die meeste van die huidige telesentrums faal omdat geen navorsing vooraf van die gemeenskappe waar die telesentrums geïmplementeer word, onderneem word nie. Die mislukking van meeste van die huidige telesentrums kan toegeskryf word aan die feit dat hulle net daar geplaas is deur instansies: Die spesifieke behoeftes van die gemeenskap is nie geïdentifiseer, ontleed en in ag geneem ten einde vas te stel watter tegnologieë en watter soort inligting die gemeenskap benodig ten einde selfonderhoudend te word nie. Die spesifieke behoeftes van die gemeenskap is dus nie aangespreek in die huidige telesentrum-inisiatiewe nie.

Die navorsing is gedoen deur middel van die Ontwikkelings-ondersteunings-kommunikasiemodel ("DSC"), en is ook belangrik weens die feit dat die behoeftes en kultuur van die landbougemeenskap die sentrale deel van die voorbereidende ondersoek en die demonstrasiefase van die loodsprojek vorm. Die behoeftes en kultuur van die landbougemeenskap van Thabina was ook ondersoek en het die basis van die loodsprojek gevorm. Die informasie gedemonstreer, is gebaseer op die praktiese behoeftes soos vasgestel gedurende die navorsing gedoen deur Loxton Venn Ass. (LVA).

Die resultaat van die projek behels dat, weens die feit dat die goedkeuring van die Ontwikkelingskomitee van Thabina verkry is na 'n demonstrasie van die verskillende

tegnologieë wat 'n telesentrum kan bied, daar nou binnekort 'n telesentrum by Thabina opgerig gaan word. Die praktiese behoeftes, soos uiteengesit in 'n opname deur LVA, sal nou aangespreek word deur die ontwikkeling- en kommunisietegnologieë ("ICTs") waarop die telesentrum gebaseer sal word, sodat die gemeenskap van Thabina tot 'n selfonderhoudende gemeenskap ontwikkel kan word: Die landbougemeenskap van Thabina sal nou toegang hê tot landbouverwante inligting soos besproeiing, produkpryse, markte, ens., en sal nou, as 'n Watergebruikersvereniging (WGV) kan kommunikeer met ander landbouverwante organisasies soos die Departement van Waterwese en Bosbou en die Waternavorsingskommissie, sowel as ander WGVs.

Gevolgtrekkings van die navorsing behels die feit dat dit duidelik geblyk het dat die konsep van 'n telesentrum eers aan die gemeenskap wat ontwikkel word, verduidelik moet word voordat die projek kan begin. 'n Deeglike studie van die behoeftes van dié spesifieke gemeenskap moet gedoen word, om sodoende te besluit watter inligting- en kommunisietegnologieë, asook watter soort inligting daarvan verkry, die spesifieke behoeftes van die gemeenskap sal kan aanspreek. Demonstrasies word gebruik om die verskillende inligting- en kommunisietegnologieë aan die gemeenskap bekend te stel, omdat dit vir 'n landelike gemeenskap 'n totale nuwe en onbekende konsep is. Die belangrikheid om deurgaans goeie kommunikasie en interaksie met die rolspelers te behou, is deurgaans deur die projek bewys. Om die projek op ontwikkelings- ondersteuningskommunikasie te baseer en interaksie tussen die rolspelers deur middel van deelnemende observasie te bevorder, het duidelik geblyk die grondslag vir die sukses van enige navorsing met ontwikkeling as doel, te wees.

SOME SOUTH AFRICAN EXPERIENCES (Conradie, 1998:108-111)

- **Serving the community in Siyabuswa - the SEIDET telecentre**

From the remote Siyabuswa district situated in the Mpumalanga Province comes an encouraging story of local initiative and vision that was crowned with success. The Siyabuswa Education Improvement and Development Trust (SEIDET) centre is a multi-purpose facility providing a variety of educational services and developmental programmes to the local community such as tuition programmes to the local community. These include supplementary educational tuition programmes for pupils and teachers, (especially in English, Science and Mathematics, career guidance and life skills enrichment programmes for the youth, finding university sponsorships and placement for local students, training in specific educational computer applications, and access to educational satellite TV transmissions.

There was a considerable level of pre-development activity when the centre was being planned - local residents reacted to identified educational needs in their community and formed various structures such as a Board of Trustees and Executive Committee to establish and run the centre. There was thus 'local pioneers with vision', and they set clear objectives of what had to be done. The centre managed to involve a number of other organisations in supporting roles, (e.g. the University of Pretoria, the Mpumalanga Department of Education, the Human Sciences Research Council and Vista University). It is clear that there had been a significant community response to participate and help. Especially over week-ends there are many forward-thinking local teachers and residents who offer their services as facilitators, teachers or trainers to the centre free of charge. To support and equip these individuals, there are a number of externally financed 'training-of-trainers' types of initiatives. There is thus abundant evidence of co-operation and collaboration among all parties involved. SEIDET provides a prime example of how to follow a 'community-centred management approach' at a centre by creating community ownership, by being accountable and transparent to community stakeholders, and by trying to be continually aware of the changing environment by initiating, monitoring and evaluation processes. The centre also managed to avoid the pitfalls, e.g. projects being

led by technology in stead of by a previously identified local development needs, using specific ICT's for inappropriate uses, or trying to do everything with technology.

- **Commercial planning with commercial success only - the Hammanskraal Phone Shop**

The Hammanskraal Phone Shop is a structure made out of reconstituted shipping containers, and it is housed at the entrance of the Leseding complex opposite the Hammanskraal police station in the North-West Province. Although it provides local residents with free access to a computer system offering detailed information on a variety of topics and areas, the centre's main focus is on a number of ICT-based services run on a commercial basis, most notably cellular telephone links with the outside world, as well as computer typing and printing facilities.

The following activities did in fact take place: With regard to commercially-orientated activities there was a fair amount of pre-development activity: It started when a local businessman saw the potential demand for cellular phone services, and he had the drive and vision to approach Vodacom - a local cellular phone service provider - with clear commercially orientated objectives. This led to the centre being erected. With regard to the community-oriented (non-commercial) services at the centre, there was no pre-development planning. However, Vodacom did bring in another institution in a supporting role, the CSIR, who installed a computer-based system that residents could use to access development-related information, and who also trained three facilitators at the centre to assist users. However, an HSRC evaluation of the system among users showed that the content of the information on offer was not seen as being very relevant for locals. It therefore seems as if the Hammanskraal centre is surviving financially because appropriate business-orientated measures were initiated and followed through in response to local communication needs. The community-orientated informational activities are not having a marked effect, seemingly because of unsuitable content, and this is to some extent indicative of a lack of local ownership and a lack of pre-installation planning.

- **Commercial failure but community success - the Brits Publicity Association**

Brits is a small town situated not far from the picturesque Hartebeespoort Dam about 50 kilometres to the west of Pretoria. In January 1997 the Brits Publicity Association established an information centre in the rates and taxes hall of the Brits Transitional Local Council by installing a touch-screen information kiosk there. The kiosk uses the CSIR's self-help 'In-Touch' system that provides information to users in the form of text, graphics and sound that can be evoked by touching the screen.

The installation of the kiosk was preceded by extensive pre-development planning and negotiations. Two enthusiastic officials of the Brits Transitional Local Council had collected a large amount of data on local and development-related issues, and they had a vision of getting local business enterprises to advertise on the kiosk system, to such an extent that a profit could be made out of providing this free information to the public. HSRC evaluations of the system have shown that users like the system and the information it provides. In spite of this popularity among members of the local community, it unfortunately has transpired that local businesses are not interested in advertising on the system. Although the ICT is acceptable to the public, the technology appears to be alien to the advertisers, and this was not taken into account or made provision for during the planning. The information system is therefore successful as a community-orientated service, but it is unsuccessful in its primary goal, which is to be a profit-making commercially-orientated venture. Unless the advertisers' lack of support can be addressed, and remedied, the continued future of this centre remains uncertain.

- **Community-orientated planning and success - the Micha-Kgase educational telecentre**

The Micha-Kgasi High School is located near the remote Kgalatsane village in the North West Province. Although there are no telephone lines in the area and there are no affluent local businesses that can sponsor educational initiatives, this school has managed to erect a telecentre that is equipped with donated computers (albeit somewhat outdated in most cases) and a modem using cellular technology to provide their Pentium PC with an e-mail link to the rest of the world. The centre is used for computer skills

development and for innovative educational projects involving the use of computers and e-mail.

The Micha-Kgasi telecentre can boast a number of points indicating success: The most noticeable point is the strong leadership and vision shown by the school principal, Mr Philemon Kotsokoane. Mostly through his efforts, there has been a great deal of pre-development planning regarding using ICT for educational purposes: clear goals have been set, and a number of influential local and international organisations, donors and institutions have been actively involved in the activities at the centre. The strongest point mitigating against continuing success is that the centre has not initiated any commercially-orientated ICT programmes or activities that could provide additional funding, and so the centre has remained dependent upon donations or grants from institutions such as funding organisations or educational bodies. However, in spite of this, within a year or two the school and its telecentre have moved out of virtual obscurity and have become well-known both locally and abroad.

DO'S AND DON'T'S WHEN USING THE FAX AND E-MAIL (van Lill, 2000)

Message

- Do not type in capital letters. In Internet language it means you are screaming.
- A line should contain a maximum of 70 characters. Some e-mail programs break off a line after a certain amount of characters. Your message may therefore arrive at its destination in a quite unusual format.
- Contemplate your e-mail message before you send it. Remember that it is permanent, can be easily intercepted and sent to other users.
- Keep your message short. Short sentences and paragraphs are not only easier to read, but some farmers have to connect to their service providers via farm lines. The longer the message, the longer it takes to deliver it on the e-mail. It may also cause the receiver to consider the message too long to wait for. The same applies to attachments.

Reply

- Do not send back the full e-mail message when you answer someone. Copy only the relevant parts, delete the rest so that the message can remain as short as possible.
- Write your comment at the beginning of the copied part of the message, so that the receiver can immediately read your answer, but will still be able to see the relevant original message. Sometimes days go by before e-mail gets answered and the other correspondent will not necessarily remember what was in the original message.

An example of an e-mail message and the reaction on it is shown below:

*Thanks, I am interested

>I have a limited amount of onion seed available

- Do not forward personal e-mail to a discussion group without the permission of the original sender.
- Make sure that, when you answer an e-mail that was sent to a group, that you don't forward your answer to the entire group of 1000 receivers of the original message, but only to the sender. Use the "reply" button, The "reply to all" button will make you

very unpopular.

- Set your e-mail program to add a *short* signature (not more than four lines) to the bottom of messages. Keep it short: name, title, contact number, work address or name of farm etc., usually in a smaller font.
- Do not use e-mail discussion lists for commercial purposes. Bill Gates will not pay \$1000 for a list of addresses and Disney World will not make a free holiday available. Finally, viruses are picked up by good anti-virus software and not by “anti-virus warnings or chain letters”.
- Do not forward chain letters

Where do I start in using the Internet?

It is important to know that the Internet does not have a front door. There is not only one place where you can start discovering the Internet. If you know on what subject you want information, or know what you want to do, you use a search engine to get there. Search engines can be described as electronic indexes of what is available on the Net.

If the Internet would be a book, the search engine would have been the index. By entering certain keywords or phrases, the search engine sifts in these pages (from all the possible web pages on the Internet) that is applicable to your keyword or phrase. There are quite a number of search engines on the Internet. You can choose on which one you want to search for your information.

Handy hints

As with any communication, the Internet also has its own codes obtaining specific and relevant information. The following aspects should be born in mind when using the Internet:

- Use keywords in your search that are as specific as possible. If for instance you are looking for a remedy for ear pain, just type in “ear pain”, and also try to type in as much information as possible about it.
 - Use an asterix (*) if you are not sure what the rest of a word is. If you should type in the word big*, the computer will search all the possibilities that begins with big, e.g. bigger, biggest, bigwig, etc.

- Use inverted commas to indicate phrases as one concept. If you should type in ear pain, the search engine will search for web pages that contain all three words, e.g. 'ear' and 'pain'. This will have the effect that you receive such a lot of results that it would be impossible to work through.

- If however, you place the words in inverted commas, e.g. "ear pain" the search engine will search for it as one phrase and you will only receive information on these three words.

- You can also include or exclude words by using the + or - sign. In this way you can look for chocolate cake recipes without chocolate chips by typing in as follows: recipe +chocolate -chips. The computer will now search on the web pages for the words recipe and chocolate and exclude those that have chips in.



SAFEX - Trade Prices

Contract	ExpiryMonth	ExpiryYear	Future/ Option	Option Type	Price	Volatility	Premium	Volume	Time Last
ALSI	JUN	2000	Future		7401			10	6/12/00 3:4
ALSI	SEP	2000	Future		7590			10	6/12/00 2:2
ALSI	MAR	2001	Future		7910			100	6/12/00 3:4
ALSI	MAR	2002	Future		8170			50	5/10/00 5:1
FINI	JUN	2000	Future		3516			30	5/18/00 10:0
INDI	JUN	2000	Future		8676			60	6/12/00 3:4
INDI	SEP	2000	Future		8920			10	6/12/00 1:5
INDI	MAR	2001	Future		9230			60	6/8/00 11:2
JBAR	JUN	2000	Future		89.68			50	4/18/00 9:0
R153	AUG	2000	Future		14.96			7	5/19/00 4:3
SOLQ	JUN	2000	Future		58.28			10	6/9/00 11:1
SUNS	JUL	2000	Future		1125			10	6/1/00 11:2
SUNS	JUL	2000	Future		1100			3	6/9/00 10:2
SUNS	SEP	2000	Future		1174.5			1	6/1/00 11:3
SUNS	SEP	2000	Future		1151			1	6/9/00 11:5
SUNS	DEC	2000	Future		1234			3	5/31/00 9:2
SUNS	JUL	2001	Future		1230			1	6/8/00 11:3
WEAT	JUL	2000	Future		1320			10	6/8/00 11:3
WEAT	SEP	2000	Future		1230			1	6/9/00 11:3
WEAT	DEC	2000	Future		1216			2	6/6/00 10:3
WMAZ	JUN	2000	Future		609			2	6/12/00 11:1
WMAZ	JUL	2000	Future		605			12	6/12/00 11:1
WMAZ	SEP	2000	Future		623			5	6/12/00 11:1
WMAZ	DEC	2000	Future		663			1	6/12/00 11:1
WMAZ	MAR	2001	Future		698.4			1	6/9/00 11:5
WMAZ	MAY	2001	Future		676			2	6/8/00 11:0
WMAZ	JUL	2001	Future		700			1	6/9/00 11:5
YMAZ	JUN	2000	Future		628			2	6/9/00 11:5
YMAZ	JUL	2000	Future		623			1	6/12/00 11:1
YMAZ	SEP	2000	Future		640			5	6/12/00 11:1
YMAZ	DEC	2000	Future		682.6			4	6/9/00 11:5
YMAZ	MAR	2001	Future		730			3	6/1/00 10:3

YMAZ	MAY	2001	Future					2	5/10/00 11:4
YMAZ	JUL	2001	Future		700			1	6/9/00 11:1
ALSI	JUN	2000	Option	D		29.59%		200	5/24/00 10:0
ALSI	JUN	2000	Option	D		28.00%		100	6/12/00 10:4
ALSI	JUN	2000	Option	N			1858	30	6/8/00 1:53:
ALSI	DEC	2000	Option	D		25.72%		300	6/8/00 1:54:
ALSI	MAR	2001	Option	D		27.00%		100	6/8/00 4:42:
ALSI	MAR	2001	Option	D		34.00%		10	5/2/00 12:40
ALSI	MAR	2001	Option	N			1200	10	5/4/00 11:19
INDI	JUN	2000	Option	D		39.00%		100	6/9/00 5:24:
INDI	JUN	2000	Option	D		39.00%		10	5/24/00 4:00
INDI	JUN	2000	Option	N			450	20	5/22/00 9:18
INDI	JUN	2000	Option	N			629	10	6/2/00 11:27
INDI	SEP	2000	Option	D		31.00%		20	6/8/00 12:16
INDI	SEP	2000	Option	N			2017	100	6/7/00 11:36
INDI	MAR	2001	Option	D		28.00%		100	4/5/00 4:25:
INDI	MAR	2001	Option	D		33.52%		300	6/5/00 2:38:
SUNS	SEP	2000	Option	N			700	1	6/9/00 9:05:
SUNS	SEP	2000	Option	N			73000	1	5/26/00 10:2
SUNS	DEC	2000	Option	N			250000	5	5/25/00 11:4
SUNS	DEC	2000	Option	N			270000	5	5/25/00 11:4
SUNS	DEC	2000	Option	N			500	2	6/5/00 9:27:
WEAT	DEC	2000	Option	N			125000	1	6/7/00 11:39
WEAT	DEC	2000	Option	N			180000	10	6/2/00 9:55:
WMAZ	JUL	2000	Option	N			280000	5	6/12/00 11:4
WMAZ	JUL	2000	Option	N			60000	5	6/12/00 11:4
WMAZ	SEP	2000	Option	N			160000	10	6/6/00 11:49
WMAZ	SEP	2000	Option	N			200000	10	6/12/00 11:0
WMAZ	DEC	2000	Option	N			280000	10	6/12/00 11:2
WMAZ	DEC	2000	Option	N			470000	5	6/12/00 11:0
WMAZ	MAR	2001	Option	N			240000	10	6/6/00 11:04
WMAZ	MAR	2001	Option	N			480000	10	6/6/00 10:3
WMAZ	JUL	2001	Option	N			30000	5	6/8/00 9:15:
WMAZ	JUL	2001	Option	N			250000	5	6/2/00 10:29
YMAZ	JUL	2000	Option	N			180000	2	6/7/00 11:52
YMAZ	JUL	2000	Option	N			105000	2	5/3/00 11:30




YMAZ	SEP	2000	Option	N			180000	10	6/5/00 9:58:
YMAZ	SEP	2000	Option	N			215000	5	6/12/00 11:0
YMAZ	DEC	2000	Option	N			400000	5	6/12/00 11:0
YMAZ	DEC	2000	Option	N			280000	5	5/18/00 11:3
YMAZ	JUL	2001	Option	N			160000	20	6/8/00 11:06

Press this button to return to the previous page.

[Back](#)

Developed by Symbioses Technology Solutions CC

FUNGI DISEASES

COMMON NAME	SCIENTIFIC NAME	PHOTOGRAPH
<u>Black Dot</u>	<i>Colletotrichum coccodes</i>	
<u>Early Blight</u>	<i>Alternaria solani</i>	
<u>Gray Mold (Botrytis)</u>	<i>Botrytis cinerea</i>	
<u>Late Blight</u>	<i>Phytophthora infestans</i>	
<u>Powdery Scab</u>	<i>Spongospora subterranea</i>	
<u>Silver Scurf</u>	<i>Helminthosporium solani</i>	
<u>Stem Canker/Black Scurf</u>	<i>Rhizoctonia solani</i>	
<u>Stem Rot</u>	<i>Sclerotium rolfsii</i>	
<u>Verticillium Wilt</u>	<i>Verticillium albo-atrum</i> & <i>V. dahliae</i>	
<u>White Mold</u>	<i>Sclerotinia sclerotiorum</i>	
<u>Fusarium Wilt</u>	<i>Fusarium oxysporum</i> & <i>F. solani</i>	
<u>Fusarium Dry Rot</u>	<i>Fusarium oxysporum</i> & <i>F. solani</i>	
<u>Gangrene</u>	<i>Phoma exigue</i> var. <i>foveata</i> & <i>P. exigue</i> var. <i>exigue</i>	

STEM ROT

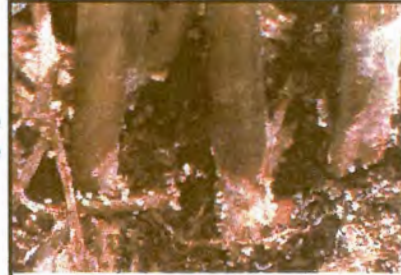
(*Sclerotium rolfsii*)

[Symptoms](#) | [Optimal Conditions](#) | [Other Hosts](#) | [Control](#)

Stem rot attacks a wide range of plants, but is normally a problem under hot, moist conditions. The disease is caused by the fungus *Sclerotium rolfsii*.

DISEASE SYMPTOMS

Infection of stems take place at or just below the soil surface. The lower leaves become **chlorotic** and wilting of the whole plant takes place. A white, fanlike **mycelium** grows on the stem, tubers, or soil surface.



Numerous round, initially white, but later brown, **sclerotia** form at the stem base and soil surface. Plants wilt and lower leaves become chlorotic. Lesions usually grow up and down the stem and all living tissues are killed. Initially infected tissues are soft and brownish.



Tubers may become infected through the stolons of diseased material or through **lenticels** from mycelia growing over the tuber surface.



^
—

OPTIMAL CONDITIONS FOR DISEASE

The disease favor high temperatures (28 to 30°C). The fungus is soilborne and sclerotia can survive for years in the soil. Infection can occur at any stage during the growth of the plant. The disease spread mainly through mycelial fragments and sclerotia in debris or infested soil.

^
—

FUNGAL DISEASES

<u>Alternaria Leaf Spot</u>	<i>Alternaria alternata</i>	 Move cursor over Common Name
	<i>Alternaria helianthi</i>	
	<i>Alternaria helianthicola</i>	
	<i>Alternaria helianthificiens</i>	
	<i>Alternaria protenta</i>	
	<i>Alternaria zinniae</i>	
	<i>Alternaria tenuissima</i>	
<u>Black Stem (Late Lodging)</u>	<i>Phoma macdonaldi</i>	
	<i>P. oleracea</i> var. <i>helianthi-tuberosi</i>	
<u>Charcoal Rot</u>	<i>Macrophomina phaseolina</i>	
<u>Downy Mildew</u>	<i>Plasmopara helianthi</i>	
	<i>Plasmopara halstedii</i>	
<u>Grey Headspot</u>	<i>Albugo tragopogonis</i>	
<u>Grey Stemspot (Early Lodging)</u>	<i>Albugo tragopogonis</i>	
<u>Head Rot</u>	<i>Rhizopus microsporus</i>	 Move cursor over Common Name
	<i>Rhizopus</i> spp.	
	<i>Botrytis cinerea</i>	
<u>Phomopsis Stem Canker</u> ***	<i>Phomopsis helianthi</i>	
	<i>Diaporthe helianthi</i>	
<u>Rust</u>	<i>Puccinia helianthi</i>	
<u>Sclerotinia Head Rot</u>	<i>Sclerotinia sclerotiorum</i>	
<u>Sclerotinia Stem Rot</u>	<i>Sclerotinia sclerotiorum</i>	
	<i>Sclerotinia minor</i>	
<u>Sclerotium Stem Rot</u>	<i>Sclerotium rolfsii</i>	
<u>Septoria Leaf Spot</u>	<i>Septoria helianthi</i>	
<u>Verticillium Wilt</u>	<i>Verticillium dahliae</i>	
	<i>Verticillium albo-atrum</i>	
<u>White Blister Rust</u>	<i>Albugo tragopogonis</i>	

*** This disease has not been recorded in South Africa

^
—

The role of ARC-ILI in water conservation and small-scale irrigation development



The ARC-Institute for Agricultural Engineering (ARC-ILI), together with other ARC-institutes and partners, has been involved with the upgrading and maintenance of the infrastructure of various irrigation schemes in the Northern Province. This entails water distribution networks such as canals and pipelines. The ARC-ILI also investigates soil conservation projects such as flood water run-offs, storm water canals and the need to erect soil conservation structures. The Institute also does natural resource potential studies - this includes the availability of water and water quality potential of soil for irrigation purposes and the climate - quantity of rain and temperatures - to determine the types of suitable crops as well as crop water requirements. In-field irrigation training is also done. The mechanisation requirements of the schemes are also studied - how many ploughs, tractors and other cultivation implements are required for each situation.

An important function performed at these schemes by the Institute is the compilation of an infrastructure Development Plan. More important is that it is compiled in collaboration with the communities and their farmers. The ARC-ILI also compiles a water management plan for each irrigation scheme and provides training in water conservation and management to farmers. Pilot distribution schemes are established to serve as demonstration. This is part of a participative process, done in collaboration with Loxton, Venn Ass. (LVA). LVA is responsible for institutional capacity building and training.



Schemes currently involved are the following:

Thabina, near Tzaneen

Thabina has 200 ha under flood irrigation, involving 124 farmers. They grow maize during the summer and various types of vegetables during winter. Some of their maize is marketed and some sold locally.

**Morgan, near Thohoyandou**

The farmers here also cultivate maize, and sub-tropical fruit such as mangoes and bananas on smaller scale. About 50 ha is under irrigation and 24 farmers are involved.

**Boschkloof, near Steelpoort, Lydenburg district**

Vegetables are grown here during winter and maize during summer. At least 100 farmers on 180 ha are involved in this scheme.



**Dingleydale/New Forest, near Buschbuckridge**

There are 650 farmers in this district growing maize and vegetables (especially tomatoes) during summer and winter, on 1 650 ha. This scheme significantly contributes to the local economy by providing jobs and supplying vegetables.



[Back to Articles](#)
[Back to ARC-ILI Home Page](#)

***** This is the ARC Test Site *****

ARC-ILI investigates minimum tillage - Sustainable utilisation

Minimum tillage comprises all tillage practices that minimise the disturbance of the soil.



It is beneficial to certain types of soil to use tillage practices that are least disturbing, as it will improve the soil structure, or give the soil structure the opportunity to recover, because the soil is not tilled intensively. This practice is ideal for soil with a high clay content, as found in the Winterton district in Natal.

Tests are currently done at Winterton with the Brazilian minimum till planter. These tests examine how the planter handles the plant residue from the previous harvest (the new crop is planted in the crop residue of the previous season).

Minimum tillage has the benefit that it excludes intensive soil preparation and saves costs. It also retains the topsoil, which restricts water erosion and wind erosion. It preserves moisture in the soil and thus keeps the soil cool. Time is also saved because the farmer can plant directly after harvesting. A disadvantage is that the lower soil temperatures can restrain germination. Better weed-control is necessary because weeds are not worked into the soil by intensive tillage.



Whether to practice minimum tillage or not is a consideration that must be made by the farmer himself. But this is a method of tillage that surely has its advantages.

[Back to Articles](#)

[Back to ARC-ILI Home Page](#)

***** This is the ARC Test Site *****



AGEKON AKADEMIE, BK

Pers / Press

[Tuis / Home](#)

Register van Suid-Afrikaanse landbouers Register of South African agricultural press

Naam Name	Kontak Contact	Telefoon Telephone	Faks Fax	E-pos E-mail	Tuis Web
Agricultural News	Magda du Toit	(012) 3196623	(012) 3232516	-	http://www.
Die Beeld	Retha Fourie	(012) 3252878	(012) 3215232	rfourie@beeld.com	http://www.
Die Boer	August du Preez	(012) 3226980	(012) 3200557	salu@iafrica.com	http://www.
The Citizen	Koos Liebenberg	(012) 3275106	(012) 3275503	-	-
The Dairy Mail	Hennie Basson	(012) 8044800	(012) 8044811	mpo@cis.co.za	-
Farmer's Weekly	Corrie Venter	(031) 4508261	(031) 4508200	fweekly@iafrica.com	-
Finansies & Tegniek	Johann van Zyl	(011) 8847676	(011) 8840851	-	-
Forum	Dr Eddie Webb	(012) 420 3271	(012) 420 3290	ecwebb@scientia.up.ac.za	-
Kwana	Hilda Grobler	732 745-1292	732 745-9794	mesab@mesab.org	http://ww.
Landbou-weekblad	Chris Jooste	(051) 4047763	(051) 4489192	cjooste@volksblad.com	-
Mediakomm	Willie Louw	(018) 2930622	(018) 2944221	mediacom@lantic.co.za	http://www.agrite
MGKaner	Jennifer Roets	(012) 3812855	(012) 2521669	magaliesberg@icon.co.za	-
Natal Mercury	RH Freaan	(0331) 425802	(0331) 428094	-	-
Nufarmer	Johan Swiegers	(012) 8041469	(012) 8041469	-	-
Ons Eie	Adri Theron	(053) 8311578	(053) 8312370	adrit@admin.suidwes.co.za	http://www.s
Plant Protection News	Karina Grove	(012) 8080952	(012) 8081489	nipbkg@plant1.agric.za	http://www.
Potch Herald	Hennie Stander	(018) 2930750	(018) 2943916	Pherald@iafrica.com	-
Punt Geselsradio	Andries Cornelissen	(011) 6555020	(011) 3159720	nuus@punt.co.za	http://www.
		(053)	(053)		

Radio Christiana	Herman	4413999	4413131	news@crfm.co.za	http://www
Radio Pretoria	Willem Thomson	(012) 5430120	(012) 5671457	-	-
Radio Oranje	André Grobler	(051) 5050923	(051) 5050922	andre@ofm.co.za	http://www
Sake-Rapport	Adri Senekal	(011) 4066644	(011) 4026906	sgous@rapport.co.za	-
SAMeat/Vleis	Willemien von Solms	(012) 6641168	(012) 6641168	-	-
Streeknuus	Marietjie Gerber	(05391) 71856	(05391) 71856	-	-
Taurus Nuus	Joël Kotze	(012) 6671122	(012) 6671827	prom@taurus.co.za	http://www
Vrystaat Koerant	Lynda Greyling	(058) 3035411	(058) 3035106	perskor@dorea.co.za	-
WPKaner	Julie Streicher	(0224) 22951	(0224) 21941	julies@wpk.co.za	-

Verskaf u besonderhede hieronder om in die register opgeneem te kan word:
 Supply your details below if you want your name in the register:

<input type="text"/>	Naam van publikasie / Name of publication
<input type="text"/>	Kontakpersoon / Contact person
<input type="text"/>	Telefoon / Telephone
<input type="text"/>	Faks / Fax
<input type="text"/>	E-pos / E-mail
<input type="text"/>	Tuisblad / Web site
<input type="button" value="Submit"/>	<input type="button" value="Reset"/>

[[Tuis / Home](#)]

Webmaster: Philip Theunissen
 Laaste opdatering / Last modified: June 05, 2000



YOUR AUTOMOTIVE POWER MASCOR is your driving force



Mascor is a group of franchised motor and agricultural equipment dealerships. We've been going strong for over 30 years, and chances are that you've been dealing with us for a long time.

MASCOR is committed--

To meeting all your motoring needs and offering you only the most professional and highest quality service, standards and workmanship from a team that has you -and your driving interests- at heart. Whether you're behind the wheel of a tractor, truck, bakkie or car, we're behind you -all the way.



info@mascor.co.za

12803



This Website created and maintained by TradePage

PRODUCT RANGE



Vegetable Seed



STARKE AYRES (PTY) LTD offers an extensive range of high quality, performance tested F1 hybrid and selected open-pollinated varieties of the following vegetable crops:

Vegetable Seed Product List

A comprehensive crop/variety list is available on request.

Many of the open-pollinated varieties offered are produced by the Company's own, fully equipped Production Department, and may therefore be offered at extremely competitive prices on the international market.

With the exception of the Company's own propriety tomato and pumpkin F1 hybrids, the F1 hybrid range is marketed under license on an exclusive basis for a number of leading seed companies world wide. Marketing rights are in place for all countries comprising the South African customs union as well as for certain other countries in Africa and the world, subject to ...



Recently, **STARKE AYRES (PTY) LTD** released its first own propriety tomato and pumpkin F1 Hybrids. Bred and developed under local growing conditions, these varieties have performed extremely well under widely varying conditions and are rapidly establishing themselves in the market. Widely adaptable with superior disease resistant and growth characteristics, these varieties are recommended with confidence in all areas with similar potential and growing conditions.

SOUTH AFRICAN GRAIN CROPS

Market and price reports



Agrimark Trends
P O Box 30487
Wonderboompoort, 0033
Tel: +27(0)12 335-1076
Fax: +27(0)12 335-2737
E-mail:
amt@agrimark.co.za
Website address:
www.agrimark.co.za

by Agrimark Trends! (www.agrimark.co.za)

Contact persons

Francis Jurgens / Pieter van Wyk / Minda Bornman

Updated market and price information and analysis on the livestock industries for subscribers and general use

- Maize Maize prices went downwards in the last weeks but the upward movement on Chicago Board of Trade and the weakening of the Rand pulled prices higher
- Sorghum Sorghum prices followed maize prices to a great extent
- Wheat Wheat prices are high currently, with planting time just around the corner
- SAFEX prices SAFEX prices of maize are volatile in the last two days as a result of rain in South Africa, the exchange rate and the situation in the US
- Grain marketing
 - **Marketing Strategy / Bemarkingstrategie**
- Trade agreements
 - **Zimbabwe Agricultural Commodity Exchange**



Landboubemarking /
Agricultural Marketing

P O Box/Posbus 1413
Bloemfontein, 9300
Tel: (051) 430-8521
Fak /Fax: (051) 430-3774
E-mail / E-pos:
mark@proper.co.za



AGRICULTURAL RESEARCH COUNCIL

- [Introducing the ARC](#)
- [Institutes](#)
- [Index](#)
- [New on the site](#)
- [Media](#)
- [Releases](#)
- [News](#)
- [Events](#)
- [Publications](#)

Book titles:



[Agricultural Geographic Information System \(AGIS\)](#)
























- [Products & Services](#)
- [Search the Site](#)
- [Employee Search](#)
- [Project Search](#)
- [Vacancies](#)
- [Visitors](#)
- [Book](#)
- [Links](#)
- [Intranet](#)

Enquiries:
[Helpdesk / Webmaster](#)
 Tel: 27-(0)-12-4279700
 Fax: 27-(0)-12-3423948

Agricultural Research Council:
 1134 Park street, Hatfield, Pretoria
 Postal address:
 P.O. Box 8783, Pretoria, 0001, SOUTH AFRICA



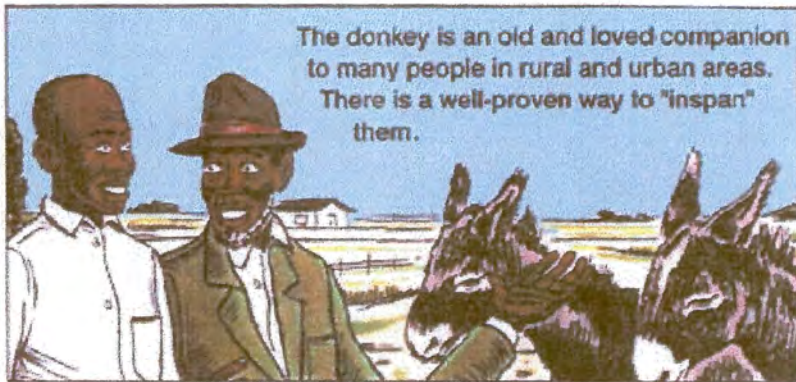


 BENZA AND BETTY® INFO CARTOONS	
 PETROL ENGINE MAINTENANCE	 DIESEL ENGINE MAINTENANCE
 DONKEY CART	 RIPPER-PLANTER
 CABBAGE	 BEEKEEPING
 BEETROOT	 TOMATOES
 CARROTS	 SORGHUM
 GRAIN STORAGE	 COMPOST
 CHEMICALS	 MULCH
 SOIL SAMPLE	 RAINWATER
 RABIES	 BEEF TAPEWORM
 HYDATID TAPEWORM	 HOOKWORM
 THIS PROJECT	 INTERACTION

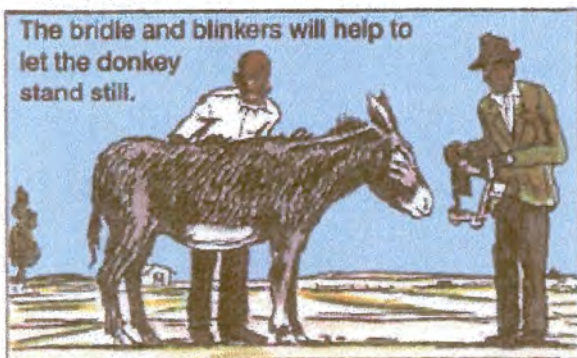


**BENZA
AND
BETTY**
INFO CARTOONS

**THE
TRADITIONAL
"INSPAN" OF
DONKEYS**



The donkey is an old and loved companion to many people in rural and urban areas. There is a well-proven way to "inspan" them.

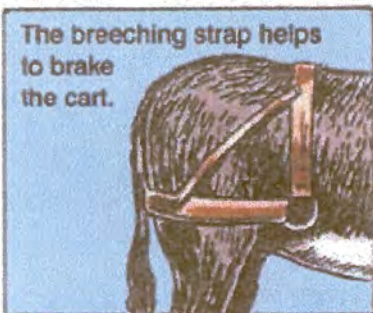


The bridle and blinkers will help to let the donkey stand still.

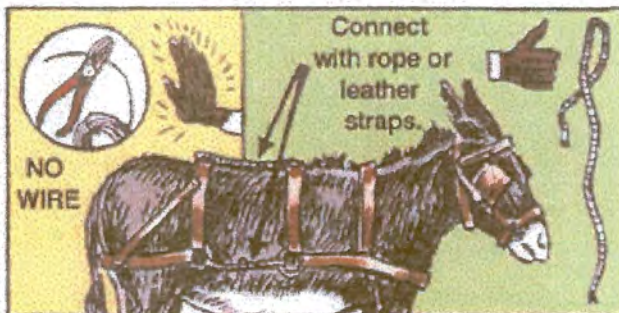


Put on the breastband.

It must not choke the donkey.

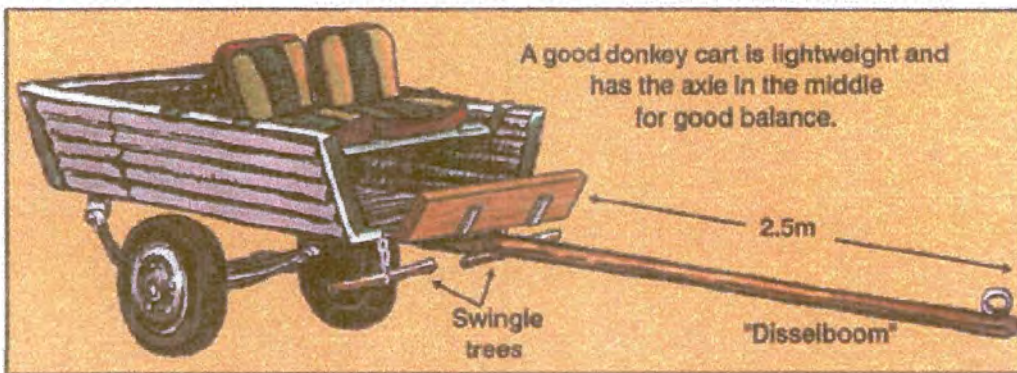


The breeching strap helps to brake the cart.



NO WIRE

Connect with rope or leather straps.



A good donkey cart is lightweight and has the axle in the middle for good balance.

2.5m

Swingle trees

"Disselboom"

>

Transfer interrupted!

Benza & Betty



ARC • LNR
BENZA AND BETTY
INFO CARTOONS

INTRODUCING THE PALABANA RIPPER-PLANTER ATTACHMENT

TALABANA
MAKING DRAFT POWER
ZAMBIA

The conventional plow

After the first rain, the conventional plow is used to loosen the whole surface of the field. This is very labour-intensive and time-consuming.

The shars and mouldboard are removed

The ripper

900min

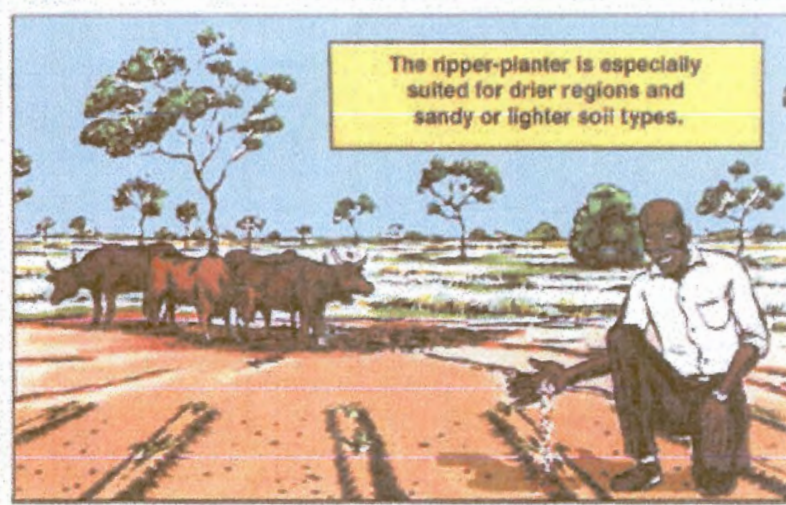
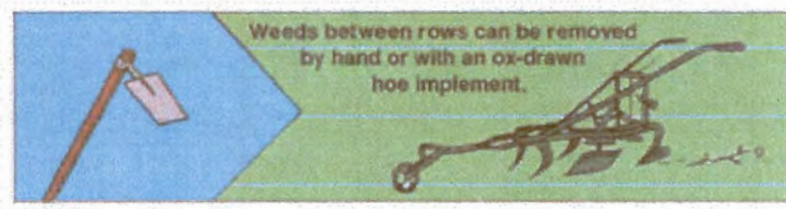
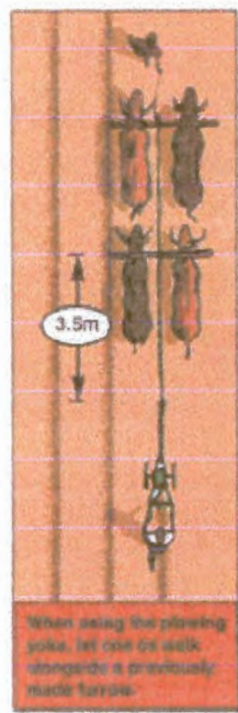
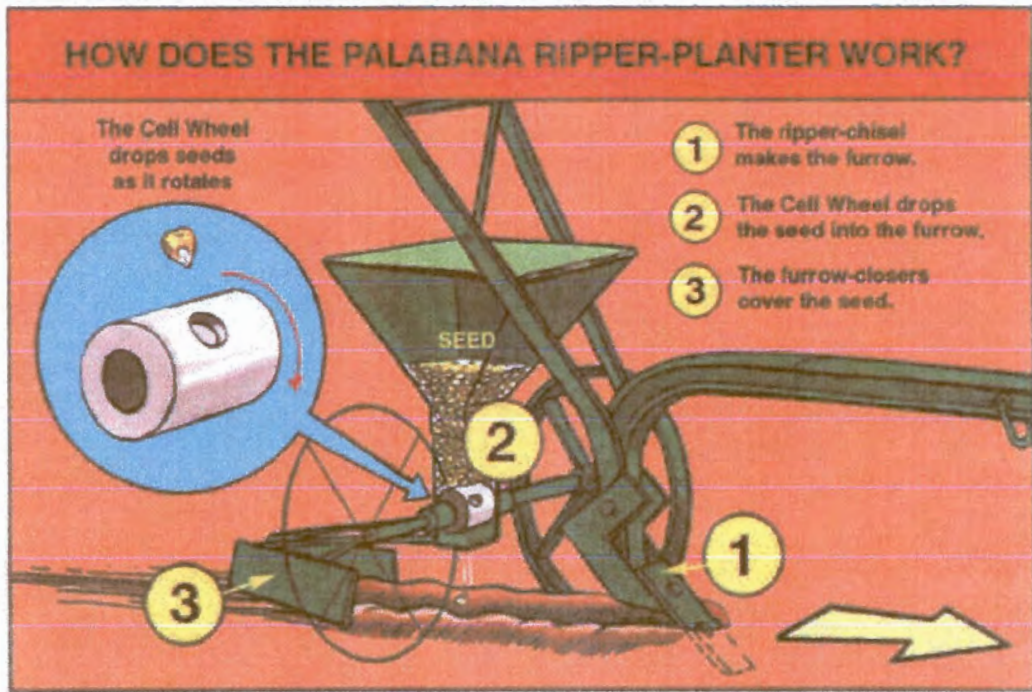
The ripper can be used in lighter soils to loosen ONLY the planting rows BEFORE the first rains. This will help the soil to absorb more water when the rain comes.

The seed goes into the hopper

The ripper-planter

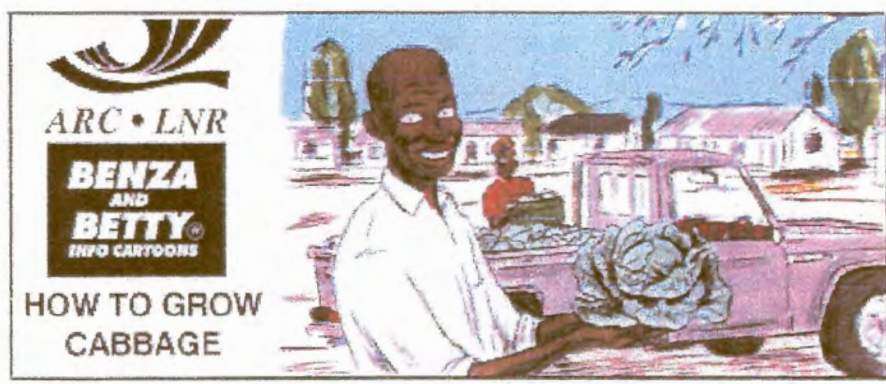
SEED

After the first rains, the ripper-planter is used to loosen the soil and plant at the same time. This saves a lot of work and makes immediate use of the newly moistened soil.




BROUGHT TO YOU BY THE: Agricultural Research Council of South Africa
 PO, Box 8783 Pretoria, 0081 Tel: (0)12 4279904 Fax: 3423948 www.arc.agric.za
 ARC - Institute for Agricultural Engineering Tel: (012)842 4000 Fax: (012) 804 0753






Start in autumn **OR** Start in spring


Loosen soil deeply.




Apply fertiliser, manure or compost.



Mix through.





Use one hand fertiliser for every square metre of soil.




OR


Four hands of manure.





Even out.




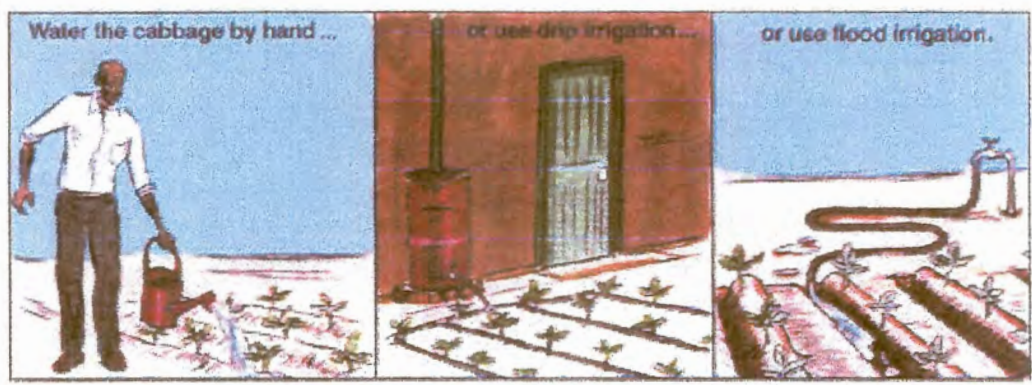


For flood irrigation, make ridge-and-furrows a forearm apart and plant the seeds along the ridges.

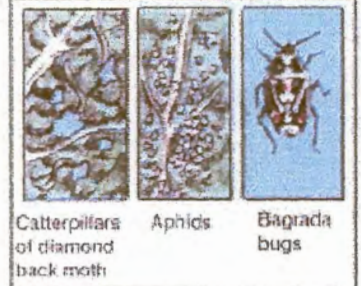
Plant the seedlings along the watermark on the ridges.

Not on top of the ridge.





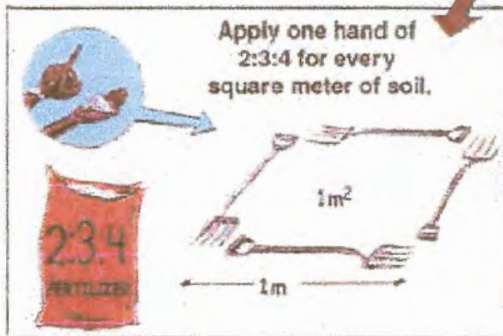
One month after planting.

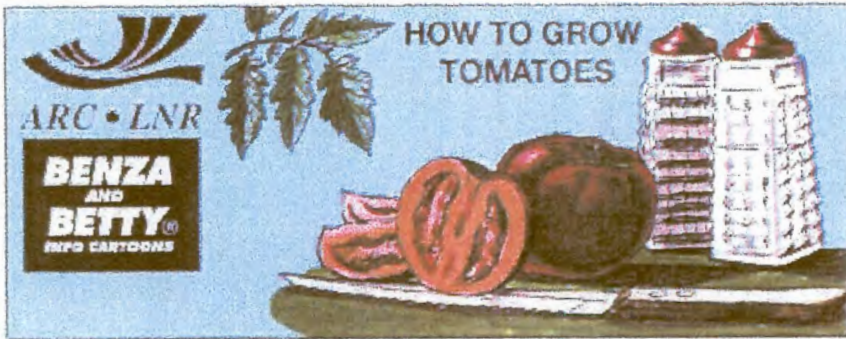


BROUGHT TO YOU BY THE: Agricultural Research Council of South Africa
 PO. Box 8783 Pretoria, 0081 Tel: 27 (0)12 4279904 Fax: 3423948 www.arc.agric.za ARC • LNR
 ARC-Rooдеplaai Vegetable and Ornamental Plant Institute Tel: (012) 841 9611 Fax: (012) 808 0844



**BENZA
AND
BETTY®
INFO CARTOONS**





Tomatoes grow best in summer.



Start preparing in spring



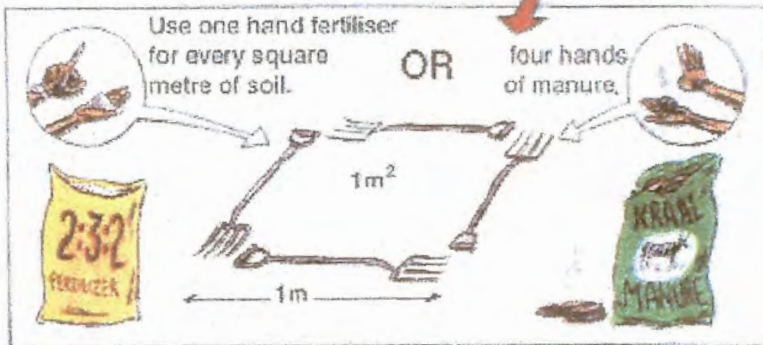
Loosen soil deeply.



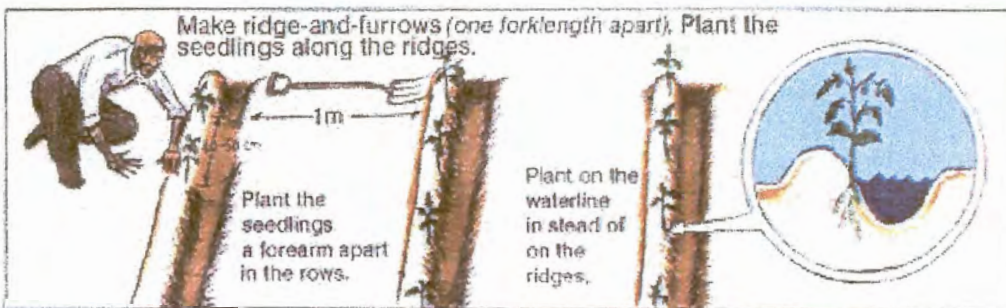
Sprinkle fertiliser, manure or compost.

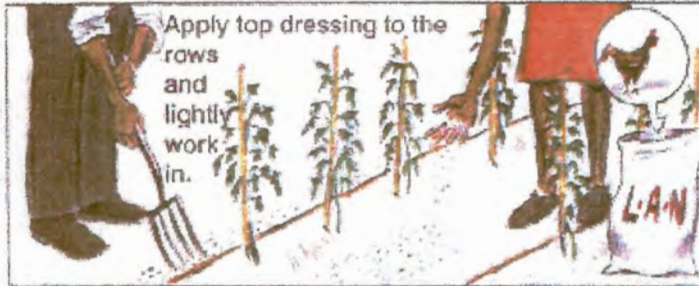


Mix it through.



Even out.





After 4 more months.



Bollworm



Leaf-miner



Early Blight



BROUGHT TO YOU BY THE: Agricultural Research Council of South Africa
 PO. Box 8783 Pretoria, 0081 Tel: (0)12 4279904 Fax: 3423948 www.arc.agric.za
 ARC-Roodeplaat Vegetable and Ornamental Plant Institute
 Tel: (012) 841 9611 Fax: (012) 808 0844

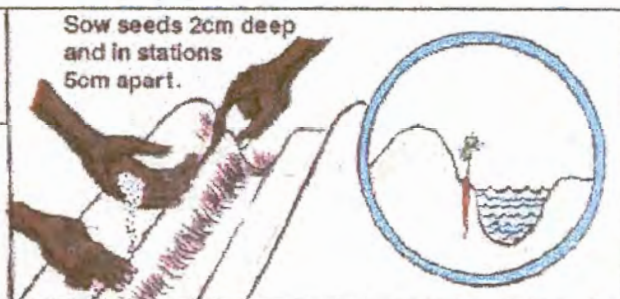
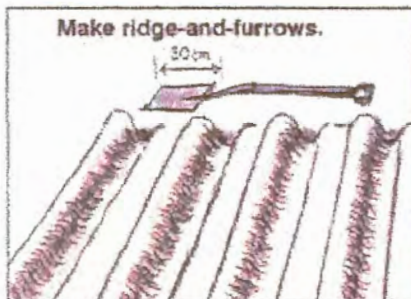
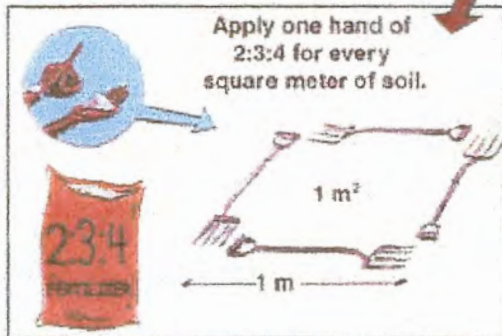


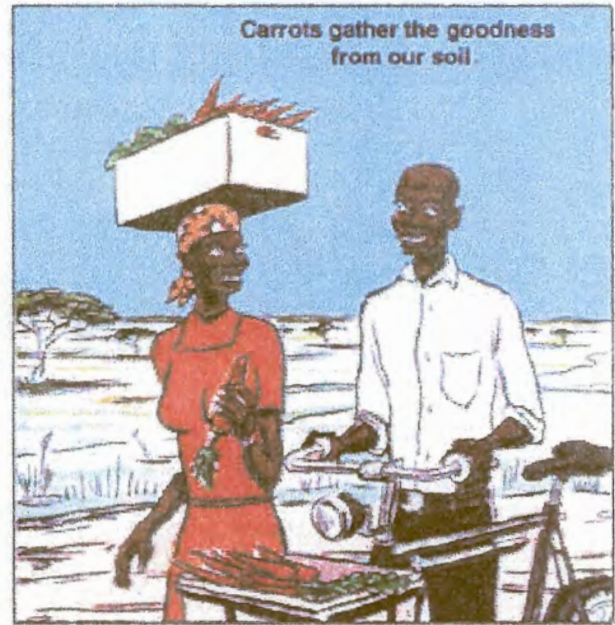
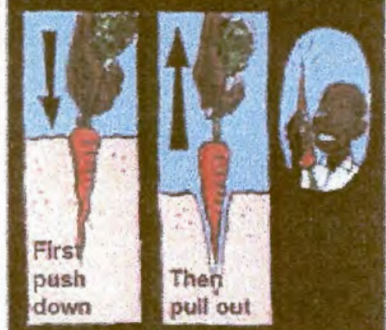
Transfer interrupted!

le> Benza & Betty



Start in spring

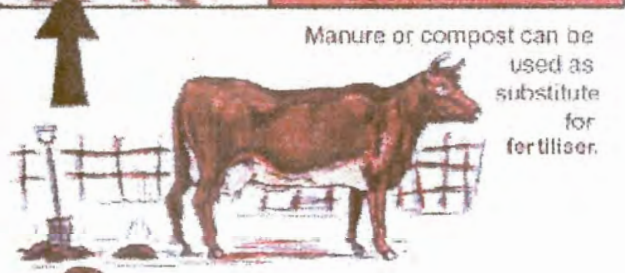


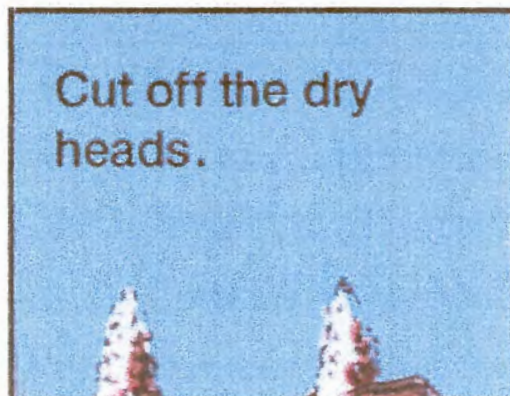
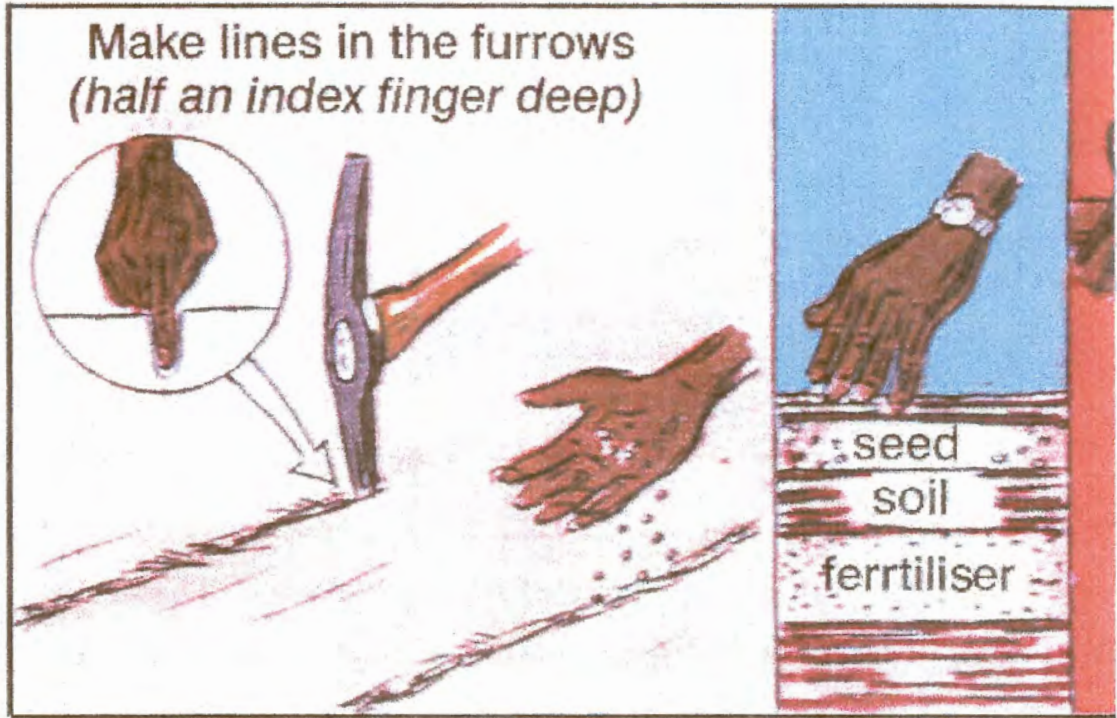


BROUGHT TO YOU BY THE: Agricultural Research Council of South Africa
PO. Box 8783 Pretoria, 0081 Tel: 27 (0)12 4279904 Fax: 3423948 www.arc.agric.za
ARC-Roodeplaat Vegetable and Ornamental Plant Institute
Tel: (012) 841 9611 Fax: (012) 808 0844



Benza & Betty





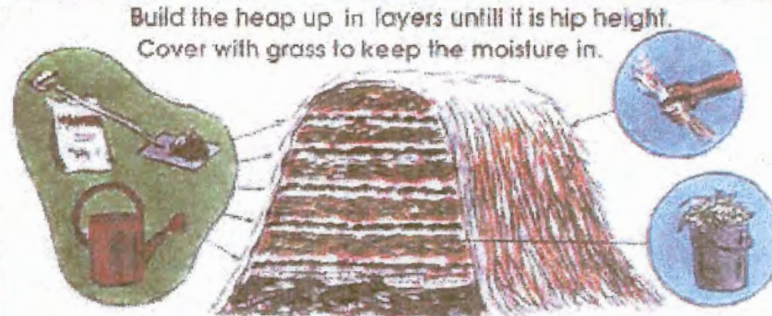
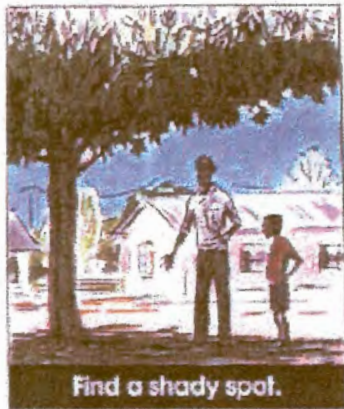
Transfer interrupted!

le> Benza & Betty



NATURE'S FERTILISER





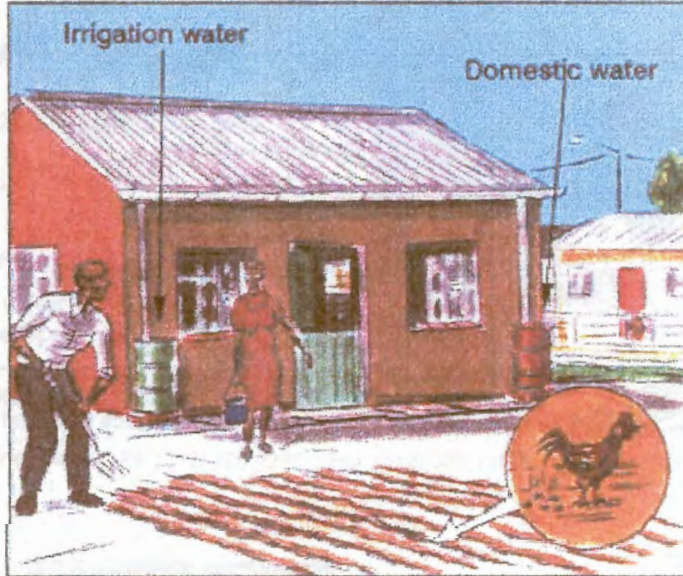
**BENZA
AND
BETTY®
INFO CARTOONS**

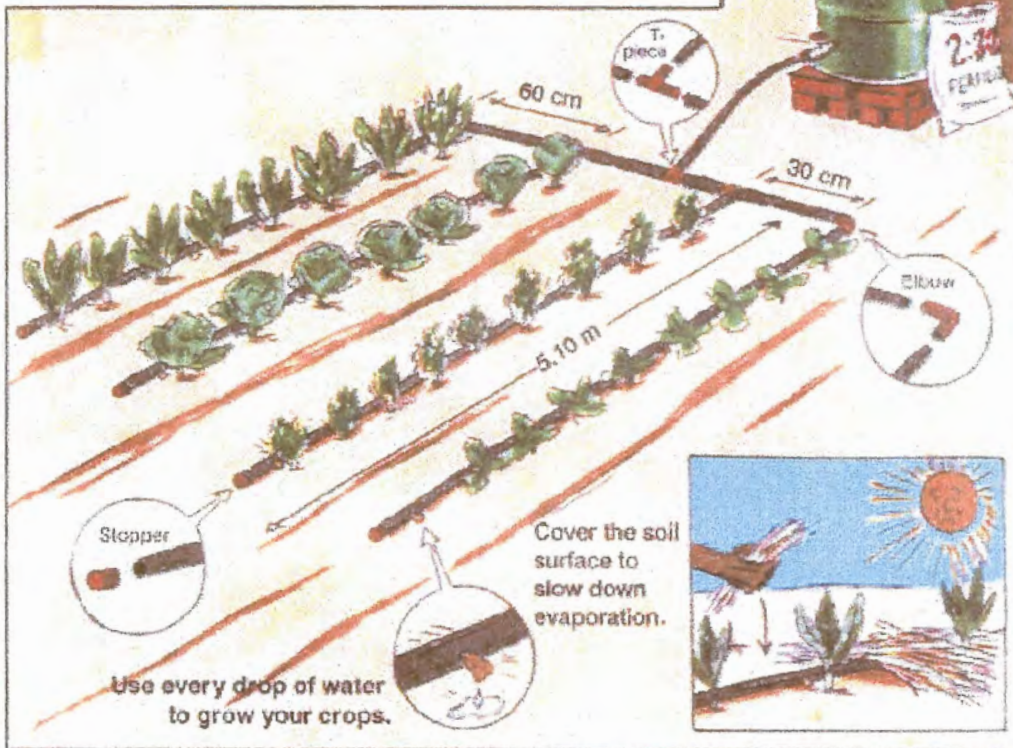
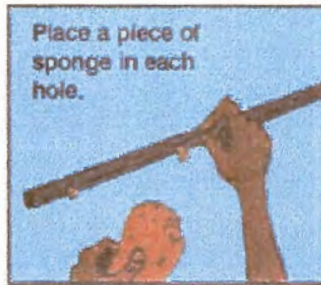
For more information about compost:

Benza & Betty



MAKING THE MOST OF RAINWATER





BROUGHT TO YOU BY THE: Agricultural Research Council of South Africa
 P.O. Box 8783 Pretoria, 0081. Tel: (0)12 4279904 Fax: 3423948 www.arc.agric.za
 ARC-Institute for Soil, Climate and Water Tel: (012) 326 4205 Fax: (012) 323 1157



Thabina Irrigation Scheme
P O Box 696
LETSITELE
0885

25 July 2000

Mrs D van der Merwe
Media Liaison Officer
ARC Institute for Agricultural Engineering
Private Bag X519
0127 SILVERTON

Dear Mrs van der Merwe

INFORMATION CENTRE

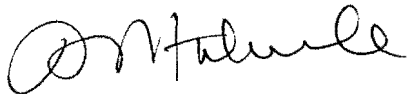
We wish to confirm our interest in the establishment of an Information Centre at Thabina Irrigation Scheme.

We are a pilot project for the transfer of ownership of smallholder irrigation schemes from Government to the farmers. The Information Centre will be of great value to us in obtaining information that we can use to manage our project well.

The Department of Agriculture in the Northern Province has agreed to support us by providing an official to run the Centre.

Thank you for your interest in us and we look forward to working closely with you.

Your sincerely



THABINA IRRIGATION SCHEME
DEVELOPMENT COMMITTEE