

VOICES

SHARING IDEAS, GROWING SOLUTIONS.



The newsletter
for partners of
Developing
Countries Farm
Radio Network

SEPTEMBER 2004, NO. 72

INTEGRATED PEST MANAGEMENT STRATEGIES FOR FARMERS



Over 800 million people in the world still go hungry every year. The *World Food Summit: Five Years After* in 2002 saw renewed commitments to halve this number by 2015, with an emphasis on poverty alleviation and sustained agricultural production. Most of this effort has focused on improving farming systems for small-scale producers in developing countries, especially in sub-Saharan Africa, where the majority of the world's hungry and those living in poverty are dependent on agriculture and natural resources for their livelihoods.

However, strategies promoted by international organizations and governments to increase crop productivity frequently rely on providing fertilizers, improved seeds that increase yield, and chemical inputs. Case studies where farmers have used these systems to increase their productivity have shown that they often introduce new problems. For example, in Ethiopia, a campaign to introduce improved varieties of maize (most often replacing traditional crops) resulted in increased spending on chemical pesticides, higher losses from pest damage during storage, and an increase in poisonings, ill-health and soil degradation from the use of toxic pesticides.

The Ethiopian case study, and many more, as well as farmers' own experiences, have resulted in a shift in thinking that recognizes that if small-scale farmers are going to improve their productivity and food security, strategies must be farmer-driven and based on traditional knowledge, sound ecological pest, soil and water management methods, and appropriate crops and varieties. Integrated Pest Management is an essential component of these strategies.

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Farmers in your listening audience will almost certainly be familiar with Integrated Pest Management, or IPM. But what exactly does it mean? And why is IPM so important to long term sustainable agriculture and improved food security?

There are many different definitions of Integrated Pest Management, but they share a few basic principles. IPM programs include methods for controlling insect, weed and disease pests in crops that:

- Are farmer oriented
- Rely on local knowledge
- Are based on natural processes
- Reduce reliance on pesticides
- Use least toxic pesticides only as a last resort
- Establish a healthy cropping system
- Are locally adaptable, and
- Are economically sound¹.

While IPM may include chemical control, it usually aims to reduce or eliminate altogether the use of pesticides because of their costs and the dangers they pose to human health and the environment.

But IPM is more than just pest management. It also has the potential to improve farming systems as a whole. IPM builds on the knowledge of women and men farmers, including knowledge about the habits and life cycles of pests, to increase crop yields through the use of pest-resistant crop varieties, beneficial insects, crop rotation and improved soil management. At the same time, IPM reduces farmers' dependence on chemical inputs that are both expensive and harmful to human health and the natural environment. Thus a successful IPM strategy contributes to long term sustainable agriculture and food security.

Continued on page 6

PACKAGE 72:

PEST MANAGEMENT SOLUTIONS FOR FARMERS

The eleven scripts published in the September 2004 package cover different aspects of pest control: everything from deciding when an insect becomes a pest, to possible solutions to weed and insect pests in certain crops, and the potential dangers of applying chemical pesticides. The messages woven throughout the scripts are similar: learn about pests; use that knowledge to decide what control methods to use; use many different methods at the same time; and reduce dependence on chemical pesticides.

- 72.1 Is an insect always a pest?
- 72.2 Understanding plant diseases
- 72.3 Radio spots: Can you control pests without pesticides?
- 72.4 Reduce pests naturally with biological pest control
- 72.5 Remove striga weeds carefully from your field
- 72.6 Crop rotation and intercropping reduce damage from striga weed
- 72.7 Protect stored grain from beetle damage
- 72.8 Managing the banana weevil
- 72.9 Controlling the diamondback moth: a serious pest of the *Brassica* vegetable family
- 72.10 The 'push-pull' approach to controlling stem borers in maize
- 72.11 Pesticide accumulation: a chain of poison

Partner NEWS & VIEWS

The following information was sent to us by *Farm Radio Network* partner Samuel Ugochukwu of Ugofarm Information Service in Nigeria. It describes simple techniques used by local farmers to control pests without using chemical pesticides. For more information about these methods, you can contact Samuel at PO Box 149, Uvuru Aboh Mbaise, Imo State, Nigeria. Email: ugofarm@yahoo.co.uk

Ways of managing pests differ from culture to culture. In this area in the south east of Nigeria, farmers seldom use pesticides. They see them as too costly and hazardous to their health. Instead, they use their own local methods to manage their crops.

- To prevent termite and weevil damage in crops like yam tubers, farmers mix kitchen ash into the soil before planting. This method has withstood the test of time.
- After harvest, farmers treat their maize to prevent weevil damage by tying the maize in bunches and hanging the bunches above a fire stand. This heats the maize and kills the weevils.
- To prevent rodent damage to maize after harvest, farmers spread a leaf called thorn leaf on the maize. The rats don't like to climb on the thorny leaves, so it helps to preserve the crop.

Cameroon prepares for locust invasion

In August of this year, James Achanyi-Fontem, our partner at Cameroon Link Douala, sent us the following note:

The Cameroon Ministry of Agriculture is leaving no stone unturned towards ensuring that the locusts that have invaded Mauritania, Mali, Niger and Chad do not cause untold hardship to Cameroon populations. The insects are advancing at a speed of up to 100 km a day and it is feared that they could reach some parts of Cameroon's Far North Province. Two and a half tons of cereal have been stocked in anticipation of any food crisis. However the Secretary General for Agriculture warned that if the invasion causes widespread destruction of food crops and farmland, the Cameroon government would be forced to seek assistance from international aid organizations.

CELEBRATE WORLD FOOD DAY ON OCTOBER 16



Each year on October 16th, the Food and Agriculture Organization of the United Nations celebrates World Food Day. The theme for World Food Day 2004 is **Biodiversity for Food Security**. Biodiversity is essential for agriculture and food production and for long-term food security; but it is threatened by urbanization, deforestation, pollution and the conversion of wetlands. FAO estimates that we have lost about three-quarters of the genetic diversity of agricultural crops over the last hundred

years. You can help farmers preserve biodiversity — including local knowledge, and improve their nutrition and health, and economic well-being. Farm Radio Network Package 56 published in July 2000 — **Biodiversity contributes to food security** — includes eight radio scripts about maintaining diversity at the local level. The scripts can be used as a starting point for researching and producing radio programs about the benefits of growing many different crops on the farm, and the importance of saving and storing seeds from local crop varieties. To download the scripts from our website, visit: www.farmradio.org. For more information about World Food Day, including audio productions available for download, contact: FAO, Via delle Terme di Caracalla, Rome 00100, Italy. Fax: +39-06-570-53210 Email: World-Food-Day@fao.org www.fao.org/wfd/index_en.asp

TREATY TO REDUCE RISKS FROM HAZARDOUS PESTICIDES AND CHEMICALS ENTERS INTO FORCE

A new treaty to reduce health and environmental risks posed by hazardous pesticides and chemicals entered into force in February 2004.

Known as the Rotterdam Convention, the treaty will help countries to control the availability of highly toxic pesticides, including those that pose a serious health risk to millions of small-scale farmers in developing countries. Under the Convention, an exporting country must provide information to an importing country if the pesticide is banned or severely restricted in other countries due to its health or environmental impacts. The treaty also gives the country the right to refuse the importation of such pesticides.

About 70,000 different chemicals and pesticides are available on the market, and 1,500 new ones are introduced every year.

The challenge for governments is to monitor and manage these potentially dangerous substances. Many pesticides that have been banned or severely restricted in industrialized countries are still marketed and used in developing countries. The treaty will help countries stop unwanted imports of these pesticides.

Jointly supported by the Food and Agriculture Organization of the United Nations (FAO) and United Nations Environment Programme (UNEP), the treaty promotes sustainable agriculture in a safer environment. “Inappropriate pesticides and their misuse still threaten health and the environment in developing countries,” said Jacques Diouf, FAO Director-General. “We recognize that, in meeting the increased demand for food production, pesticides will continue to be used. The Rotterdam Convention provides countries with a major tool to reduce the risks associated with pesticide use.”

Resources

Sources of information

Pesticide Action Network-Africa PAN-Africa is an information and action network working towards replacing chemical pesticides with sound ecological practices. The *Pesticides & Alternatives* newsletter provides information on pesticides, integrated pest management, alternatives to chemical control, and addresses issues related to sustainable agriculture, health care and protection of the environment. It is published three times a year in English and French. Contact: PAN-Africa, BP 15 938, Dakar-Fann, Senegal. Tel: (221) 825 49 14, Fax: (221) 825 14 43
Email: panafric@telecompus.sn www.pan-africa.sn

Banana Research Network for Eastern and Southern Africa BARNESA coordinates regional-level research on banana production to increase food security and farm incomes for farmers in the region. Contact: **BARNESA Co-ordination Office**, International Network for the Improvement of Banana and Plantain, Regional Office for East and Southern Africa, Plot 106 Katalima Rd. Naguru, PO Box 24384, Kampala, Uganda. Tel: 256-41-286213, Fax: 256-41-286949, Email: inibap@imul.com www.asareca.org/barnesa/about/barnesa.htm

Uganda National Banana Research Programme aims to increase banana productivity through development and promotion of technologies for integrated management of weevil, black Sigatoka and nematodes. *InfoMusa* journal is published twice a year in English, French and Spanish, and is available free for readers in developing countries, or online at: www.banana.go.ug The website also includes a discussion forum at www.banana.go.ug/cgi-bin/discus/discus.cgi Contact: NBRP, Kawanda Agricultural Research Institute, PO Box 7065, Kampala, Uganda, East Africa. Tel: (256)(41)(566158), Fax: (256)(41)(566381), Email: banana@imul.com

Centre for Cover Crops Information and Seed Exchange in Africa provides information on research, development and seed availability of cover crops in sub-Saharan Africa. Back issues of their newsletter and several publications are available in English and French. Contact: CIEPCA, République du Bénin, 08 BP. 0932 Tr Postal, Cotonou. Tel: 229 350188, Fax: 229 350556, Email: ciepca@cgiar.org

Crop Post-Harvest Programme Southern Africa works in partnership with small holder farmers and organizations to improve food security by reducing losses, improving quality and adding value to primary crops. The free regional *Post-Harvest Bulletin* newsletter is published quarterly. Contact: CPHP 151 Sam Nunjoma Street c/o Biotechnology Trust of Zimbabwe, PO Box CY 2855, Causeway, Harare, Zimbabwe. Tel: 00 263 11 403 434, Fax: 00 263 4 722579, Email: tafadzwa@cphpsa.org.zw

International Centre of Insect Physiology and Ecology ICIPE works closely with farmers and in partnership with other collaborators in tropical countries (particularly in Africa) to develop and train in the use of environmentally safe and affordable tools and strategies for managing harmful and useful insects. Contact: ICIPE, PO Box 30772, 00100 Nairobi Kenya. Tel: 254 (20) 861680-4, Fax: 254 (20) 806330/860110. Email: dg@icipe.org www.icipe.org

Publications

Producing Food without Pesticides: Local Solutions to Crop Pest Control in West Africa This book describes 67 local solutions to crop pest control, as well as crop protection and descriptions of common pests in West Africa. The information is intended for small-scale farmers and gardeners. Available from: ECHO, Inc., 17391 Durrance Rd., North Fort Myers, FL 33917 USA. Tel: 239-543-3246

Striga Newsletter, edited by Pan Africa Striga Control Network (PASCAN), two issues every year. For copies contact: FAO Regional Office for Africa, PO Box 1628, Accra Ghana. Tel: +233 21 701 09 30, Fax: +233 21 701 09 43, Email: Mads.Mourier@fao.org

African Indigenous Vegetables This CD-Rom describes more than 180 African vegetable species and includes in-depth coverage of the 30 most commonly cultivated vegetables. Information was provided by farmers, students, scientists, and outcomes from research projects. For more information contact: Rudy Schippers, Horticultural Development Services LLP, Email: hortds@aol.com

Internet and radio resources

Global IPM Facility is a joint project of FAO, UNDP, UNEP and the World Bank that promotes Integrated Pest Management through awareness raising and support and supports initiatives that develop IPM field programs. The website includes an on-line directory of IPM experts who respond to IPM questions. The directory is also available on CD-ROM as well in downloadable text file format. Contact: Global IPM Facility, Plant Production and Protection Division, FAO, Viale delle Terme di Caracalla 00100 Roma Italy. Fax: +39-06-570.56227.
www.fao.org/ag/AGP/AGPP/IPM/gipmf/index.htm

The African Community Radio Manager's Handbook: A Guide To Sustainable Radio This manual was developed and edited by Radio for Development in partnership with the World Association of Community Radio Broadcasters (AMARC). It draws on case studies from across Africa and covers topics ranging from how to get the community involved and keep them involved, to how to make your station financially profitable. Contact: AMARC, 705 Bourget Street, Suite 100, Montreal, Quebec, Canada H4C 2M6. Tel : +1-514 982-0351, Fax : +1-514 849-7129
Email: amarc@amarc.org www.africa.amarc.org

ItrainOnline website provides computer and Internet training resources for development organizations and civil society groups in the South. Materials and resources are available in English, French, Spanish, and other languages, on topics ranging from computer and Internet basics to more technical information, and the ways that development organizations can increase their impact using these tools. **See section on Producing Content for Radio** (developed by AMARC) which includes information about writing for radio, interview techniques, radio presentation, and basic techniques for preparing and assembling a radio program. The site also includes a special section of on-line resources for women. www.itrainonline.org

Food and Agriculture Organization of the United Nations' audio catalogue provides radio programs for community, regional and international radio networks and national broadcasters. Radio programs are available for download free of charge from
http://www.fao.org/audiocatalogue/index.jsp?lang=EN&category=2

Project funding

Radio Nederland Training Centre (RNTC) supports and encourages the use of media for development and education. They are currently offering financial support to a limited number of productions for radio, television, and the internet. RNTC is calling for proposals for a radio or television program (or a contribution to a website) that focuses on development and/or education issues. Successful submissions will be awarded a budget to design and make the program (a maximum of €3,000 for a radio program). Deadline for proposals is November 1, 2004. Contact: RNTC, PO Box 303, 1200 AH Hilversum, The Netherlands. Tel: 31-35-6724 500, Fax: 31-35-6724 532, Email: info@rntc.nl Bureau Afrique: PO Box 06-561, Cotonou, Benin PK3. Tel :229-33 33 26, Fax:229-33 53 82, Email: Rnafriq@intnet.bj http://www.rnw.nl/rntc/proposalcontestindex.html

Common Ground Media Fellowships Search for Common Ground is an international non-profit organization that promotes cooperative solutions to conflict resolution. They offer fellowships throughout the year to support journalists working worldwide to report on and analyze the issues of conflict and encourage dialogue and collaborative problem solving. Media Fellows receive US\$300 - US\$1,000 to research stories for broadcast or publication anywhere in the world. For more information contact: Common Ground Media Fellowships, Search for Common Ground, 1601 Connecticut Ave., Suite 200, Washington DC 20009.
Email: gkulick@sfcg.org www.sfcg.org

Partner PROFILE

PRODUCTION STUDIO PROMOTES DIALOGUE FOR THE FUTURE

Studio Ijambo is a radio production studio located in Burundi that provides programming to local radio stations about peace, development and national reconciliation. Ijambo means “wise words” in Kirundi, the local language of Burundi. Studio Ijambo was launched in 1995 and has been a Farm Radio Network partner since 1999.

Among programming offered to radio stations are news, cultural and social affairs magazines, and soap operas. Studio producers weave messages of social and political change into the story lines and character development of the various program formats. One of their most successful productions is a soap opera that first aired in 1997. “Our neighbours, ourselves” revolves around the lives of two families living next door to one another – a Hutu family and a Tutsi family. Through the interactions of these neighbours, the broader conflict in Burundi is highlighted, and day-to-day problems are solved through a process of peaceful conflict resolution.

Studio Ijambo’s aim is to “produce high quality reconciliation programs dedicated to peace and national reconciliation, and credible programs that promote dialogue among polarised groups.” Studio Ijambo was launched just after the genocide in neighbouring Rwanda — when radio was notorious for promoting fear and violence in that country. The concern that a similar outbreak of violence in Burundi could take place was part of the justification for founding Studio Ijambo.

The studio is funded by Search for Common Ground (see *Resources* section for contact information), a communications group that specializes in conflict resolution and also operates in other regions experiencing conflict including Angola, Sierra Leone, Macedonia and the Middle East.

Broadcasters can download programs in French from Studio Ijambo’s website at: www.studioijambo.org. Their handbook, *Conflict Sensitive Journalism*, is also available on-line in PDF format. Contact: Studio Ijambo at BP 6180, Bujumbura, Burundi.

GEORGE ATKINS COMMUNICATIONS AWARD CALL FOR NOMINATIONS

The George Atkins Communications Award was established in 1991 to recognize partners of Developing Countries Farm Radio Network for their outstanding commitment and contribution to food security and poverty reduction through participatory development communication. The award is named for Dr. George S. Atkins, the Network’s Founding Director. This year’s winner will receive a cash prize of US\$250.

To be eligible for this award, organizations must be directly involved in radio broadcasting activities and have been a partner with Farm Radio Network for a minimum of one year. We are looking for partners who demonstrate:

- excellence in the production of radio programs that respond to the needs of small-scale farmers in their broadcast area;
- innovative participatory approaches to communication;
- commitment to community involvement and development.

Nominate yourself, your organization or another Network partner. Please submit a statement (up to 1000 words) of why you think this partner should receive the award. Include any relevant information such as photographs, biographical information or samples of recent work with your nomination.

Send submissions by mail or Email (to jpittet@farmradio.org) by December 31st, 2004, to:

**The George Atkins Communications Award
Developing Countries Farm Radio Network
101-416 Moore Avenue
Toronto, Ontario Canada M4G 1C9**

Continued from page 1

Scripts for radio

The radio scripts that accompany this *Voices* newsletter promote Integrated Pest Management methods for controlling pests and diseases in crops, both in the field and in storage. They emphasize the importance of learning as much about the pest as possible, in order to understand when an insect becomes a pest, and therefore when and how to control it. The scripts also focus on the role of farmer to farmer knowledge sharing in developing successful pest management strategies. Radio is the perfect medium to communicate this information. As a broadcaster, you can help farmers in your listening audience to acquire and share the knowledge, skills and tools they need to meet the threats of pests and diseases, without relying on expensive and potentially dangerous chemical pesticides, monocropping, or single crop varieties, and to improve their long term food security.

Programming suggestions

- Visit local farmers. Record interviews that highlight Integrated Pest Management techniques they are using, or invite farmers to your station to discuss their methods.
 - Be sure to include pest management methods used by women farmers.
 - Offer incentives during your broadcasts to encourage women and men farmers to share their methods through your programs.
- Hold on-air discussions with researchers who have been involved in implementing Integrated Pest Management (IPM) programs with farmers.
 - Find out if there is a Farmer Field School Program being held in your area, where farmers and scientists share their knowledge about pests (their lifecycles, impact on crops, etc.), to make decisions about the best pest management methods. (The Global IPM Facility supports training programs in IPM for small-scale farmers and extensionists. See contact information in the *Resources* section on page 4.)
 - Research and broadcast information about pesticides that are still sold in your region that do not meet internationally-accepted quality standards. (See contact information for PAN-Africa in *Resources* section on page 4.)
 - We have published many other scripts about different methods for controlling pests, and pesticide safety. They are available on the Farm Radio Network website at www.farmradio.org or contact Jennifer Pittet at the Network office.

Sources

Pesticides & Alternatives, May 1999. Pesticide Action Network Africa.

Pest Management Notes No.2: Integrated Pest Management (A briefing for the IPM in Developing Countries Project) www.pan-uk.org/Internat/IPMinDC/pmn2.pdf

Pest Management Notes No.14: Agriculture for food security (A briefing for the IPM in Developing Countries Project) www.pan-uk.org/Internat/IPMinDC/pmn14.pdf

DECEMBER 3RD – WORLDWIDE DAY OF NO PESTICIDES USE

The international Pesticide Action Network established December 3rd as the “Worldwide Day of No Pesticides Use” to commemorate the world’s worst chemical disaster. On December 3rd, 1984, a pesticide factory in Bhopal, India, exploded and released a toxic gas that injured more than 500,000 people and has caused more than 20,000 deaths. Today, millions of people still suffer from poisonings every year from the manufacture and use of chemical pesticides. Mark December 3rd on your calendar as a day to air radio programs about the dangers of pesticides to both human health and the environment, and to promote alternative pesticide management strategies.



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*Supporting broadcasters in developing countries to
strengthen small-scale farming and rural communities.*

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