



September 2015 Issue: Updates and News Alert

1. Earthworms help smallholders increase crop yields

The earthworms eat organic wastes, and their faeces that are more potent than ordinary compost are used to improve soil fertility, according to Ephraim Whingiri, the chief executive officer of Zim Earthworm Farms (ZEF). ZEF held a campaign in August in Harare, and so far has trained 100 farmers to use earthworm technology. Experts say that increased soil degradation and soil infertility have led to the massive drop in food production in the Zimbabwe, thus requiring interventions to boost agriculture.



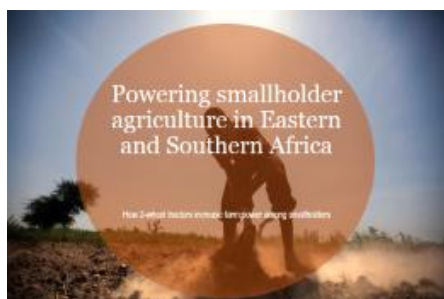
Under Conservation Agriculture (CA), the principles of permanent soil cover and no till provide the basis for availability of food for earthworms and a conducive temperature regulated and undisturbed habitat for their reproduction and multiplication.

“Soil conservation technologies enhance productivity and help farmers realise increased production,” says Whingiri. Whingiri explains that earthworm technology is cheap and can alleviate poverty, adding that his organisation is training smallholders to breed earthworms as an income-generating activity.

“The next green revolution is going to come from earthworm technology.” Ephraim Whingiri, Zim Earthworm Farms.

Read more at: <http://www.scidev.net/sub-saharan-africa/farming/news/earthworms-smallholders-increase-crop-yields.html#sthash.8JSQa5Cw.dpuf>

2. Powering smallholder agriculture in eastern and southern Africa



We all agree that sustainable intensification of agriculture in eastern and southern Africa needs our strongest attention. We work on increasing the efficiency of land. We think about improving nutrients. We notice the importance of water. But we hardly work on, think about or notice the importance of farm power.

We don't but we should. Sustainable intensification of agriculture isn't possible without farm power. And farm power is decreasing. The number of draught animals is getting smaller and smaller. Life and work as a farmer is so hard that the younger generation stops farming and moves to the cities. Female farmers can't bare the drudgery any longer. Too often the only power farmers can use, is the one that their muscles supply.

Based on experiences in other regions of the world the 2 wheel tractor seems to be the form of farm power increasing mechanisation that is best adapted to the Eastern and Southern African context. Two wheel tractors don't need much fuel, are affordable, lightweight and easy to maintain. They can be used for strip tillage and for direct planting. For small grain like teff, they help to produce a considerable gain in yield and necessitate less ploughing operations. They are very efficient in small and fragmented fields, minimize soil degradation and form no threat to biodiversity. But the question is, is Africa ready?

For more on the **photobook** and **video**:

Photo storybook: <http://facasi.act-africa.org/library.php?com=4&com2=12&com3=26&com4=>

Video: <http://facasi.act-africa.org/videos.php?com=23&item=89&vid=94>

3. Green manure cover crops reduce the need for mineral fertilizer in Africa

In Africa, mineral fertilizer remains a scarce, expensive and risky resource for most smallholder farmers. On average, farmers use less than 10 kg/ha of NPK fertilizer, and many do not apply it at all. The price of fertilizer is 3-5 times higher in Africa than in Europe due to the lack of infrastructure and production facilities, often making it unaffordable for farmers.

Many farmers in southern Africa plant maize extensively on large areas, harvest less than 1 t/ha on average and mine already depleted nutrients from the soil while trying to become food secure and escape from poverty – an impossible task! But farmers are now being offered a range of solutions that provide a way out of the poverty trap, such as improved drought and stress tolerant maize germplasm, conservation agriculture (CA), improved rotation systems with legumes and green manure cover crops.

The use of CA principles¹ hinges on the ability of farmers to retain sufficient surface crop residues to protect the soil from heavy rain, evaporation and sunlight. However, farmers in mixed crop/livestock systems face competing demands for these residues because they also feed them to their animals. Green manures are grown primarily to improve the soil, generate biomass for ground cover and provide fodder; some also produce grain for feed and food. A range of varieties have been tested by the Global Conservation Agriculture Program over the past five years. Crops such as velvet bean, lablab, cowpea, sunnhemp, jackbean, pigeon pea and groundnuts have been identified as viable options with great potential for smallholders. They provide 5-50 t/ha of extra biomass for groundcover and/or fodder, leave 50-350 kg/ha of residual nitrogen in the soil and do not need extra fertilizer to grow.

For more information: <http://tinyurl.com/CIMMYT-Article>

4. Farmers soil practices video contest

Soils are in danger, more than ever. Due to the expansion of urban areas, deforestation and/or unsustainable and inappropriate soil management techniques, this valuable resource is becoming progressively degraded, polluted or unusable. The soils of our planet are under high pressure from

¹ minimum soil disturbance, crop residue retention and diversification through rotation and intercropping

human activities. Soil as a non-renewable resource is however crucial for food production and wasting it is counterproductive. Now is the time to adapt to improved sustainable soil management practices and help us to save our most precious resource for food production. Within this context, the International Year of Soils and FAO are calling for your contribution to the **Farmers' soil practices video contest from 15th September to 12th October 2015**. The central theme of the contest is: **"Farmers' sustainable soil management practices for boosting healthy soils."**

Are you enthusiastic about sustainable soil management practices? Are you a smallholder farmer or an agricultural service provider who works directly with farmers on soil management issues? Are you an organization which generates practical knowledge in collaboration with farmers or an individual researcher investigating the topic?

You are invited to shoot a video and share sustainable soil management practices which are being used in your community and have positive impacts on the health of your soil

For More: http://act-africa.org/image/Call_farmers'_soil_practices_video_contest.pdf

5. Towards greener growth in Africa

2015 is a pivotal year for the African continent, a year which is shining a spotlight on development and climate. Among the many elements that signaled change this year, the new president of the African Development Bank, Dr. Akinwumi Adesina, took office in Abidjan on September 1.

During his inauguration, the president emphatically announced the launch of a "New Deal" for energy in Africa. He said, "Unlocking Africa's enormous energy potential, for Africa, will be a major focus of the Bank." To do this, he mentioned, among other things, the establishment of new strategic partnerships aimed at exploiting the potential of renewable energy in Africa. He added, "The Bank will be a leader on this critical initiative, because nothing is more important for Africa's economic growth and development." During consultations in Paris ahead of the upcoming global climate conference (COP21), he stressed his ambition for the continent, "The AfDB strongly supports the position of Africa in its growing need for resources to ensure climate change mitigation and adaptation."

For more: <http://afdb.createand1.com/t/ViewEmail/i/781C5578D8B046F3>

6. Conservation farming saved them from drought



As Shamillah Chebet walks through her garden, she talks about the huge losses she made the previous season. The sun stayed longer than usual and was harsh to her maize crop, the rains did not water her garden. She estimates she could have lost more than Uganda Shillings 200,000 (54 USD). But she did not lose everything though. Her *matooke* banana plantation has started bringing in some returns. Chebet attributes this to conservation agriculture (CA) practices such as mulching, which saved the plantation.

“With mulching, the water moisture was retained so even as there was a lot of sunshine, there was good cover for the soils, with some water. I varied the cover with banana leaves and grass, which on decomposing added nutrient value to the soil. The bunches were bigger than usual. I am glad to have had the training in conservation agriculture practices,” she explains.

Chebet plans to replicate the same practices to her other gardens. Betty Chesang and her husband Bosco Zakayo farm on the hills of Kapchorwa in Uganda. They explain that mulching saved them albeit in a different way. “When it rained, the mulch protected us against soil erosion. The soils were covered and prevented the water from running off and washing the soils into the valleys,” Bosco Zakayo explains.

Read More at: <http://www.monitor.co.ug/Magazines/Farming/Conservation-farming-saved-drought/-/689860/2880416/-/j5trr4/-/index.html>

7. Upcoming Events

a) **CFS Side Event: Climate Change, Food Security and Nutrition: Cultivating Sustainable Diets and Food Systems**

Agriculture for Impact will be co-hosting a side event with the Global Panel and FANRPAN at the Committee on World Food Security (CFS) event in October. The side event will be held on Wednesday 14th October, 8:30-9:30am, in the Iraq Room. Achieving food security and improved nutrition (under-nutrition and obesity) for smallholder farmers...

For more: <http://ag4impact.org/news/cfs-side-event-climate-change-food-security-and-nutrition-cultivating-sustainable-diets-and-food-systems/>

b) **Advanced Course-Asia Conservation Agriculture: Gateway for Productive and Sustainable Cropping Systems**

The 6th Course on Conservation Agriculture (CA) is scheduled to take place on October 24-November 07, 2015 at BISA-CIMMYT, Ludhiana, India. In Asia, CA is a relatively new introduction and capacity development of stakeholders' especially young researchers is vital for development, adaptation and scaling-out for impact at scale in the region. Hence, a course on CA offers a unique capacity development opportunity to the NARS scientists associated with the areas of natural resource management research.

More on learning objectives, Desired Behavioral Outcomes, Contents and Methodology, Eligibility for Participation, Course Fee and Logistics and contact detail are available on: http://www.cimmyt.org/en/news-and-updates/events/item/advanced-course-asia-conservation-agriculture-gateway-for-productive-and-sustainable-cropping-systems?category_id=7

c) **Conference of the Parties on Climate Change**

Between November 30, 2015 until December 11, 2015.

Hosted by the government of France in Paris, the 21st session of the Conference of the Parties to the [U.N. Framework Convention on Climate Change](#) and the 11th session of the Conference of the Parties serving as the Meeting of the Parties to the [Kyoto Protocol](#) aims to achieve, for the first time in more than 20 years of U.N. negotiations, a binding and universal agreement on climate, from all countries.

d) International Conference on Conservation Agriculture and Sustainable Land Use

The conference organized by Geographical Institute, Research Centre for Astronomy and Earth Sciences, Hungarian Academy of Sciences will take place at the Hungarian Academy of Sciences, Budapest, 31 May – 2 June 2016.

The conference main topics include: Soil science and geomorphology in Conservation Agricultural Systems; Agroecological research in Conservation Agricultural Systems; Yields and economy; Climate change and Conservation Agricultural Systems; Conservation Agricultural Systems and carbon cycle; and Land use and land cover change in the context of sustainable development.

For more information on the event, follow the link: <http://caslu2016.mtafki.hu/venue.html>

e) Resource links for updates

- ⇒ Be checking on this link for constant updates:
<http://www.act-africa.org/news.php?com=68&com2=6&com3=>
- ⇒ You can join the CA Community of Practice (CA-CoP)- moderated by Amir Kassam
http://www.fao.org/ag/ca/CA_CoP.html
- ⇒ See September 2015 CA-CoP postings:
<https://listserv.fao.org/cgi-bin/wa?A1=ind1509&L=CA-Cop-L>

..... *and for much more visit our website* www.act-africa.org/newsroom

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