AFRICAN CONSERVATION TILLAGE NETWORK
Partnering for Economic Growth, Improved Food Security and a Better Environment

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Updates & News Alert

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Editor's view: Introducing the April 2018 CA Alert

Agriculture remains vital for the development and economic growth of many African countries, providing livelihoods for up to 80% of the population and forming a significant productive base for the development of other sectors. GDP growth due to agriculture is at least three times more effective in reducing poverty in resource-poor, low-income countries than growth in other sectors. The multiplier effect is estimated to be much higher in sub-Saharan Africa. However, African agriculture needs to be fundamentally transformed away from the conventional tillage-based Green Revolution-type agriculture to agro-ecologically-based no-till Conservation Agriculture (CA) in order to achieve sustainable production intensification for rural development. This is a major concern that defines the heart and perspective of the Africa Conservation Tillage Network (ACT) core mandate.

To facilitate effective promotion of CA principles and practices in Africa and beyond, appropriate and affordable agro-ecological and socio-economic-based technologies and innovations anchored to the fundamental CA concepts and principles need to be emphasized and developed. In this regard and considering the need to contribute significantly to attainment of this strategy, ACT has continued to evolve, taking the lead in facilitating, coordinating and enabling knowledge and information sharing among African agricultural actors and practitioners. It is always in ACT's stride to establish and execute appropriate knowledge and information sharing platforms and systems tailored to different target groups at different levels in the continent and beyond.

In collaboration with the Government of South Africa, the African Union Commission, the NEPAD Agency, Regional Economic Communities, international NGOs, the Norwegian Agency for Development Cooperation (NORAD), the European Union (EU), the Food and Agriculture Organization of the UN (FAO) and various bilateral and multilateral partners, ACT is organizing the **Second Africa Congress on Conservation Agriculture** (2ACCA) in Johannesburg, South Africa, from **9 to 12 October 2018.** The theme of this Congress is "Making Climate Smart Agriculture Real in Africa with Conservation Agriculture: Supporting the Malabo Declaration and Agenda 2063".

By 30 April 2018, only 191 days remain to this BIG and high-profile Conservation Agriculture event in Africa, thus ACT continues to appreciate and encourage participants to register for this event. Your participation in shaping the promotion and adoption of Conservation Agriculture in Africa will be highly regarded. To register and more information about 2ACCA, visit the Congress website www.africacacongress.org or write to us at info@africacacongress.org

GET IT ON Google Play

The organizers wish to remind our readers to share their CA experiences by submitting condensed papers and posters or by booking display booths and exhibition space. The deadline for submitting condensed papers has been extended to **31 May 2018.**

ACT has launched the first **CA newsletter app** available on Google play store: https://t.co/t1kFJlHgP0. You can now read past issues on Conservation Agriculture news and manoeuvre to the ACT website through the updates section menu.

ACT acknowledges the various sources, authors, reporters, organizations and practitioners whose articles appear in this April 2018 issue; their geo-diversity is testimony of the enthusiasm and interest from various organizations, countries, researchers and scientists in Africa towards Conservation Agriculture. We encourage you to share your CA views and articles capturing the status and extent of adaptation and adoption of CA in any country in Africa or beyond for sharing with others. Please submit articles, links or views to kim@act-africa.org. You can also use the hashtags ***#conservationagriculture, #africa-mechanize*** to share links on articles, journals, and news on CA, and tag us on twitter **@ACTillage.**

Apologies for any cross posting of some articles.

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ACT participation in CESAAM and CREATES Conservation Agriculture short courses development workshop

The Centre of Excellence in Sustainable Agriculture and Agribusiness Management (CESAAM) at Egerton University (www.cesaam.ergeton.ac.ke) and the Centre for Research, Agricultural Advancement & Teaching Excellence and Sustainability (CREATES) at Nelson Mandela African Institute of Science and Technology (www.creates.ac.tz) collaboratively organized a short courses development workshop at Milele Resort, Nakuru, from 25 to 27 April 2018. The objective was to develop curriculum modules for short agri-based courses focused on enhancing the knowledge and skills of actors in the agricultural production sector. These courses will be mounted and offered at these centres and in other agri-based training institutions in the region. Experts, professors and researchers from agricultural training institutions, research centres, graduate students from East African University, private sectors, NGOs in Kenya and Tanzania participated in this workshop. The African Conservation Tillage Network (ACT), a regional expert on Conservation Agriculture and sustainable land management, participated in the workshop.

Workshop participants at Milele Resort, Nakuru

The two centres, CESAAM and CREATES, were created with the support of The World Bank as part of Africa Centres of Excellences, to facilitate and contribute to sustainable agriculture and agribusiness management through capacity development, research, innovation and technology transfer for enhanced food security and livelihoods.

Several short courses on sustainable agriculture and agribusiness management were drafted, and Conservation Agriculture was one of them. ACT participated and contributed to the development of these courses, particularly the course on Conservation Agriculture, which is aligned to the Master CA Curriculum, developed by ACT in collaboration with NORAD, ANAFE and several universities. These courses will be offered at various agricultural training institutions in Burundi, Kenya, Rwanda, South Sudan, Tanzania and Uganda Read More

Kenya calls for adoption of Conservation Agriculture

Kenya's Deputy President, H.E. William Ruto, speaking during the official opening of the 2nd National Conservation Agriculture Conference in Nairobi on 17 April 2018, called for the promotion and adoption of Conservation Agriculture to help improve food security in the country.

Hon. Ruto noted that in a world where resources are overstretched and overwhelmed, innovation is no longer the best way out; it is the only way to solve food insecurity.

"Given its role in reducing input use, saving energy, preserving soil and preventing land degradation, reducing carbon losses, reducing chemical load through judicial use of pesticides and reducing greenhouse gas emissions, Conservation Agriculture is the way to go," Hon. Ruto said.

Food security is critical to this transformation and improved agricultural productivity is a necessity given that by 2030 Kenya's population will reach 65 million, he said. "At its present output, agriculture's contribution to national growth is tremendous. Yet, we are far from producing at the optimal rate," Hon. Ruto said. "This convergence of agriculture and conservation should foster a tradition of fruitful innovation to ensure that productivity always outstrips dwindling resources,

finite means of production and population pressure on land," he added.

According to Kenya's ministry of Agriculture, CA is an innovative approach to agricultural production, which embeds ecological conservation into agricultural sustainability. The Food and Agriculture Organization of the United Nations (FAO) Representative in Kenya, Gabriel Rugalema, noted that CA holds promise for both food security and poverty reduction.

Rugalema said that since the beginning of the project, FAO had helped farmers in the eight project counties to negotiate crop sales worth USD 50 million with local and international markets. Conservation Agriculture is fast becoming popular globally, with 157 million hectares under CA and the area expanding at the rate of 10 million hectares annually. The area under CA in Kenya is 33,100 hectares, or 0.57% of the cropped area.

The European Union's (EU) Head of Agriculture, Resilience and Job Creation, Myra Bernardi, said the EU has committed 9.5 million euros toward promoting CA in Kenya. Bernardi called on African countries to embrace CA in their training, extension services and agricultural programs.

The meeting declared to **scale up Conservation Agriculture to sustainably contribute to 100% food, feed and nutrition security by 2022**. The focus will be on institutionalizing CA to enhance commitment of government institutions and non-state actors to overseeing the implementation of CA policy in order to facilitate the scale-up of CA adoption by over 10% of the farming population in Kenya.

Coordinated by the Joint Agriculture Intergovernmental Secretariat of the Council of County Governors, different stakeholder groups — including county governments, the national government, international NGOs, and the private sector — committed to deliver on the event's declaration. The African Conservation Tillage Network pledged to lead the development and rollout of a CA curriculum for tertiary agricultural institutions.

14th CAADP partnership platform

With each passing day, we are learning and getting more convinced of the inevitability of ensuring our agricultural systems are investment worthy and of accelerating the implementation of national agricultural investment plans to achieve the Malabo goals and targets.

This was the sentiment at the 14th Comprehensive Africa Agriculture Development Programme (CAADP) Partnership Platform convened in Libreville, Gabon. The 2018 Partnership Platform provided space and a platform for all CAADP partners for results-oriented dialogue on strengthening accountability mechanisms within the context of agricultural transformation and development. In his opening remarks, H.E Emmanuel Issoze-Ngondet, the Prime Minister of Gabon, said, "Malabo Biennial Review is pertinent as it gives indicators for countries to follow for agriculture transformation."

The 14th CAADP Partnership Platform meeting is happening after an interesting experience in investing in mutual accountability. The lessons learned in the past three years articulating an African home-grown model to track performance and report on progress is definitely an important milestone for Africa, in its quest to hold the various parties interested and involved in driving transformation in the agriculture sector in a sustainable manner. The event was attended by 350 participants from 54 different African states, 11 regional economic communities, 60 development partner organisations, 15 private sector, media and civil society organisations
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Conservation Agriculture: Africa builds climate resilience with healthy soils

Conservation Agriculture practices are helping smallholder farmers in Africa improve the health of their soils and increase yields © Apollo Habtamu, ILRI

Smallholder farmers in Ethiopia, Kenya, Malawi, Mozambique and Tanzania are increasing their capacity to adapt to climate variability by applying sustainable intensification practices. Funded by the Australian Centre for International Agriculture Research and launched in 2010, a food security programme known as Sustainable Intensification of Maize-Legume Cropping Systems for Food Security in Eastern and Southern Africa (SIMLESA) has been working with farmers to help them apply Conservation Agriculture practices — crop residue retention, minimum soil disturbance and intercropping — to boost yields and protect the environment simultaneously. Not only are these practices reducing soil degradation and improving soil moisture levels and carbon capture, they are increasing the yields of maize and legume crops. In the lowlands of Malawi, for instance, under legume rotations, maize yields have increased by up to 40%.

Implemented by the International Wheat and Maize Improvement Centre together with the national agricultural research institutes of the participating countries, SIMLESA has encouraged diet and income diversification by promoting the cultivation of multiple crops. "A first step towards food and nutrition security is a diversified farming system. In addition to maize, sorghum and different types of pulses, SIMLESA farmers have vegetable crops, fruit trees, and livestock on their farms," says Daniel Rodriguez, associate professor at the Queensland Alliance for Agriculture and Food Innovation, which has provided support to SIMLESA's research. Farmers are also encouraged to leave either all or some crop residues on the field, reduce tillage and add legume crops in rotation with cereal crops and forages to build soil health and improve yields Read More and More on SIMLESA

Across Eastern and Southern Africa, over 235,000 farming households are improving the health of their soils and boosting their climate resilience by adopting conservation agriculture techniques

Graduate student helping ease burden of Congolese women farmers

In the Democratic Republic of the Congo, women are not only the primary caretakers but they are also the primary labourers, making up 70 percent of the nation's farmers. University of Arkansas graduate student and Congo native Willy Mulimbi Byamungu is actively implementing agricultural solutions to help increase farmers' crop yields, to ease one of the many burdens of Congolese women.

In 2009, while working with the Catholic Relief Services, Byamungu began to better understand the challenges women farmers face, and to implement strategies to improve agricultural activities and food security for these women in post-conflict areas of Congo. Byamungu and his colleagues found most farmers were not properly managing their land. After two or three planting seasons, farmers were forced to move to a new plot of land because the soil had lost its fertility. To help resolve this issue, Byamungu helped farmers increase productivity and manage soil through adopting and practising conservation agriculture techniques. "By applying these techniques, women have been able to increase their yields and better manage the natural resources in the province of Maniema," Byamungu said. "Traditionally, women who rely on crops for food and income have not been able to cultivate large pieces of land, but with conservation agriculture women are finding they have more time and more success with their crops, so increasing their land size is a real possibility."

The African Conservation Tillage Network which was involved in evaluating the CRS program in Maniema Eastern Congo, describes the type of Conservation Agriculture promoted as being "organic", without tillage or use of synthetic pesticides or fertilizers, and yet resulting in halving farm labour costs while doubling crop yields Read More.

To harvest in plenty, I don't plough my farm

"With the changing climate, this is one method of farming that we are certain will boost food security in our country as well as change the lives of our small-scale farmers. We will do all it takes to advocate Conservation Agriculture countrywide," says Dr. Andrew Tuimur, Chief Administrative Secretary in the ministry of Agriculture, after visiting Stuart Barden farm in a semi-arid region of Machakos County.

Stuart Barden, an Australian in his 40s who has lived in Machakos County for six years and practising conservation farming, has for the last two years been growing chickpea and green grams on 2,000 acres in rotation using unconventional methods that are paying handsomely. "When I came here, my mind was set that I will grow crops using conservation agriculture methods because the area receives little rainfall but has fertile soils," he said. This semi-arid region receives less than 600 mm of rainfall a year, according to the Meteorological Department. However, through adopting and practising conservation farming techniques — zero tillage, permanent soil cover and crop rotation — Mr. Barden has been getting good harvests. He harvests 1,000 kg of green grams from an acre of land, with the crop taking 150–160 days to reach maturity, and 1,100 kg of chickpea from the same piece of land after 140 days.

Stuart Barden discusses a point on conservation agriculture with enthusiasts in his farm in Machakos. He uses a combination of three methods: zero tillage, permanent soil cover and crop rotation.

Barden, who caught the attention of the ministry of Agriculture, says this method of farming requires 10 percent tree cover around the farm. His prowess in farming has landed him a new title: Conservation Farming Ambassador. The government will use him to sensitize other farmers on the importance and advantages of conservation farming. Read More

Sustainable agriculture is key to overcoming hunger and climate crises, says UN food agency

Agro-ecology, also referred to as sustainable, ecological, or low-external input agriculture, is a farming technology that focuses on using nature for food production, but without damaging it.

FAO believes this technology is critical to solving food insecurity issues among a growing population, increasing resilience to climate change and raising the earnings of farmers. Pasquale Steduto, regional programme leader for FAO in the Middle East and North Africa commented: "Agriculture is in transition. Climate change is adding new uncertainty as well as increasing uncertainty. By introducing agro-ecology principles, you can reduce the risks of exposure to climate change." Currently, the global agricultural industry is rooted in the extensive use of chemical fertilisers and pesticides, which damage the environment and affect human health. Agro-ecology sees chemical fertilisers replaced with natural methods such as planting trees among crops and rotating foods to improve soil.

Stephane Le Foll, French parliamentarian and former agriculture minister, added: "We have three big challenges to manage — climate change, food security, and the connection between agriculture, forestry, economy and employment". Stephane further highlighted that agriculture can be used to combat global warming and is part of a campaign to increase by 4 percent annually the amount of carbon held in soils. Soil absorbs carbon through sequestration, which in turn improves soil fertility.

In Africa, agro-ecology has proved successful in helping farmers overcome degraded soils and poor weather. According to the Institute for Sustainable Development, agro-ecology has provided better yields than chemical fertilisers in five critical crops, including barley and maize, in Ethiopia. Read More

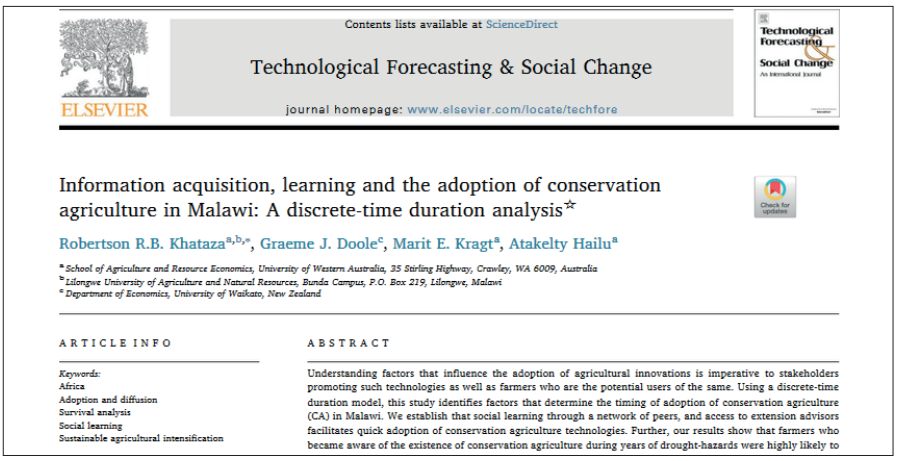
New and highly profitable trade-off opportunities with Conservation Agriculture: CA video

griculture conservation in Laikipia county

Mechanized Conservation Agriculture service provider, Mr. Kiogo, in Laikipia County, Kenya, is enjoying the new opportunity brought about by the adoption of conservation agriculture by many farmers in the region. Get the story by watching the video by NTV reporter, Zeynab Wandati.

Zeynab Wandati continues with the agriculture conversation, focusing on Laikipia County, where a 23-year-old man is making it big in conservation farming: View

Publication: Information acquisition, learning and the adoption of conservation agriculture in Malawi: A discrete-time duration analysis



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Information acquisition, learning and the adoption of conservation agriculture in Malawi: A discrete-time duration analysis☆

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ABSTRACT

Understanding factors that influence the adoption of agricultural innovations is imperative to stakeholders promoting such technologies as well as farmers who are the potential users of the same. Using a discrete-time duration model, this study identifies factors that determine the timing of adoption of conservation agriculture (CA) in Malawi. We establish that social learning through a network of peers, and access facilitates quick adoption of conservation agriculture technologies. Further, our results show that farmers who became aware of the existence of conservation agriculture during years of drought-hazards were highly likely to

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2018 Events

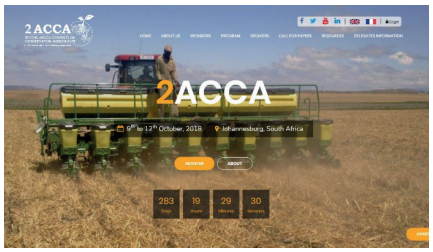
THE BIG EVENT!! The Second Africa Congress on Conservation Agriculture (2ACCA), 9–12 October 2018

Purpose to participate in this knowledge-sharing event, the 2ACCA. The aim of the congress is to bring together expert knowledge, information, and insights from practitioners from across different sectors and interest groups at all levels of agriculture development in the public, private and civil sectors. This diversity of knowledge and of stakeholders is essential:

- to enable the desired multi-disciplinary and cross-sectoral development of CA as a core production component of climate smart agriculture; and
- for the sustained mobilization of policy, institutional and community support to accelerate the widespread adoption and management of CA as a core element of the expanding climate smart food and agriculture systems in Africa.

This diversity enables the desired multi-disciplinary and cross-sector "treatment" of CA for climate smart agriculture — a feature essential for the success of CA scaling-up — as an integral part of the growing food and agriculture systems in Africa.

This is in line with the Malabo Declaration, AU's Agenda 2063 and the SDGs. The purpose of the 2ACCA initiative is to facilitate diverse and open sharing of experiences and information on CA, thereby fostering learning and widespread awareness and interest in the uptake and spread of CA in Africa. This includes CA's role in enhancing sustainable agricultural productivity, strengthening environmental and social resilience, and fostering efforts to provide for food and nutrition security as well as jobs and economic opportunities, especially for rural communities, including youth and women. The 2ACCA initiative provides "neutral space" for networking, collaboration and partnership to support the scaling-up of CA systems as the sustainable basis for development climate smart agriculture across Africa. Learn More



Registration for the Second Africa Congress on Conservation Agriculture (2ACCA) opened on 1 February 2018. **For More Information and Registration** visit: **Second Africa Congress on Conservation Agriculture**

ACT programs, projects and initiatives are firmly anchored towards achieving the 2030 SDGs.

SUSTAINABLE DEVELOPMENT GOALS

Goal1: End poverty in all its forms everywhere

Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture

Goal 5: Achieve gender equality and empower all women and girls

Goal 13: Take urgent action to combat climate change and its impacts

For more information, please contact: Executive Secretary | African Conservation Tillage Network
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Norad

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