Editor’s view: Introducing the March – April 2020 CA Alert

The global outbreak of the deadly Coronavirus - better known as Covid-19, is posing a serious health challenge to humanity. It has also some serious social, economic and food security implications to us all. Thus, it is our individual responsibility to support our governments and health stakeholders in alleviating this crisis.

At ACT, we will continue to monitor developments regarding coronavirus (COVID-19) and take measures to minimize impact on our staff, members and stakeholders. Our commitment is to ensure that everyone is safe even as we strive to deliver on our programs. We believe that fighting Coronavirus is everybody’s responsibility.

We are closely monitoring the situation and adopting precautionary measures as required. We are taking the necessary steps to ensure that our projects and network’s activities continue. This is therefore to update you on what ACT has taken to ensure continuity of our activities with caution during this period of Covid-19.

The following measures have been taken to maintain communication and workflow:

1. ACT will continue to be open for business by phone appointment only and fieldwork will continue with appropriate social distancing.
2. ACT program delivery staff will be operating remotely from their homes and working with our partners by phone and online tools whenever possible.

STOP THE SPREAD OF COVID-19!!

ACT recommends the following:

1. Wash your hands often with a soap and running water for at least 20 seconds.
2. Use hand sanitizers, but remember to wash your hands at some intervals.
3. Cover your cough or sneeze with a tissue, then throw the tissue in the trash or use your flexed elbow.
4. Avoid touching your eyes, nose, and mouth at all times.
5. When in public, wear the right face masks to cover your nose and mouth.
6. Clean and disinfect frequently touched objects and surfaces.
7. As much as possible, avoid going out to crowded or busy places, remain at home and leave only when it is very necessary.

Updates & News Alert

DON’T FORGET! The impact of COVID-19 on the rural poor and on food security

Conservation Agriculture is essential in producing healthy plants

Government of Ethiopia embarks on building the pillars for massive adoption of Conservation Agriculture

Conservation Agriculture key in meeting UN Sustainable Development Goals

climate adapted farming methods in Zambia: improving CA performance through appropriate mechanization

Equal and climate-smart

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3. The ACT partners (Centres of Excellence, Best Practicing NGOs, Companies, Farmer Organizations, etc.) will continue to deliver resource conservation programs that keep African agriculture in business today and into the future with appropriate social distancing.

4. ACT will hold necessary online meetings via the ACT Zoom video conference platform. Stakeholders are advised to liaise with management via info@act-africa.org on scheduling.

5. ACT will continue updating its members regularly via ACT Website, email broadcast and Twitter @ACTillage on relevant communication. New members can join the mailing list by subscribing via www.membership.act-africa.org.

6. For general enquiries you may also reach us via Mobile +254 774 895077 and or info@act-africa.org

ACT continues to monitor the situation and will update regularly on any new measures being initiated to enhance safety of our staff, partners and stakeholders. We urge you to follow the laid down guidelines as per your country and the WHO ‘WHO guideline’ to safeguard yourself from the Covid-19. You can get information on our actions on the link ACT Communication on Covid-19 Responses.

The Covid-19 pandemic is impacting global food systems, disrupting regional agricultural value chains, and posing risks to household food security. Both lives and livelihoods are at risk from this pandemic. We know that it will eventually retreat, but we don’t know how fast this will happen. We also know that this shock is somewhat peculiar as it affects significant elements of both food supply and demand. It disrupts some activities in agriculture supply chains and demand. The major vulnerable groups include small-scale farmers, pastoralists, and fishers who might be hindered from working their land, caring for their livestock, or fishing. They will also face challenges accessing markets to sell their products or buy essential inputs, or struggle due to higher food prices and limited purchasing power. Informal labourers will be hard hit by job and income losses in harvesting and processing. Millions of children are already missing out on the school meals they have come to rely upon, many of them with no formal access to social protection, including health insurance.

Thus, most part of the world especially developing countries risk a looming food crisis, unless measures are taken fast to protect the most vulnerable, keep global food supply chains alive and mitigate the pandemic’s impacts across the food system. The key challenge is to raise productivity in the agriculture sector which will not only ensure food availability, but potentially lift households out of poverty and better their livelihoods. To attain this, the countries must emphasize the use of modern sustainable technologies such as Conservation Agriculture (CA) by enhancing investments in extension systems, build resilience of farmers against the effects of climate change and variability, and improve agricultural market systems and infrastructure.

In this issue, we have captured what many organizations and other authors think about impact of Covid-19 on food systems and rural poor. It essentially introduces and highlights the UN declaration of this year as the International Year of Plant Health (IYPH) illustrating how conservation agriculture contributes to this discourse. Notably in this issue includes different initiatives undertaken in different countries in attempts to promote sustainable agriculture and build sustainable food systems. It also presents new information materials on conservation agriculture that would form good resources for advancing knowledge and creating awareness.

ACT acknowledges the various sources, authors, reporters, organizations and practitioners whose articles appear in this March –April, 2020 issue, their diversity is a clear testimony of the enthusiasm and interest from various organizations, countries, researchers and scientists towards Conservation Agriculture.

We encourage you to share your Conservation Agriculture and Sustainable agriculture mechanization views and articles capturing the status and extent of adaptation and adoption of Conservation Agriculture and Sustainable Agricultural Mechanization in any Country in Africa or beyond for sharing with others. Please submit articles, links or views to kim@act-africa.org. Use the #conservationagriculture, #africamechanize to share links on articles, journals, news on CA and tag us on twitter @ACTillage.

Apologies for any cross posting of some articles.
DON’T FORGET! The impact of COVID-19 on the rural poor and on food security

While all eyes are on Lombardy, Madrid, New York and Wuhan, what do we know about the impact of COVID-19 on the rural poor and on food security in developing countries? How can the impact of the crisis be moderated? What positive breakthroughs could be provoked by this shock to move us into a better “new normal”? What can donors and implementing organizations do to support low- and middle-income countries during and beyond this crisis?

Members of the Agriculture and Rural Development working group of the international Scaling Up community of practice held a virtual meeting to discuss these questions and how scaling-up innovations could help to recover from the current crisis and mitigate future ones.

When it comes to a highly contagious disease, being in a rural area sounds better than being in a busy city, but that is a deceptive impression. Smallholder farmers often are older than average and hence more vulnerable to the virus, and they have less access to health services.

They also depend on field labourers that are not able to travel from surrounding villages to help with planting, weeding and harvesting. To process crops, smallholder farmers need to transport crops to processing centers, which may be closed, as are the markets where they obtain agricultural inputs or sell farm products. Large international agribusiness firms, which supply inputs and purchase local farmers’ products may withdraw, at least temporarily, from the rural economies.

Lack of access to labor could be disrupting harvesting and planting in our Feed the Future countries, accelerating an already predominant trend of migration, especially among the young, to urban areas. We see a looming need for mechanization of farms at scale, using mini-tillers, planters, harvesters and other time- and labor-saving equipment,” said Mark Huisenga, Senior Program Manager for the USAID Bureau for Resilience and Food Security.
Conservation Agriculture is essential in producing healthy plants

“...a mistreated natural environment favours processes that threaten our well-being. Soil conservation is investment, not expense. Investing in land and water resources benefits everyone. A healthy and fertile land ensures a healthy society and economy. The terrestrial ecosystem in balance with its natural environment guarantees the proper functioning and the greatest resilience of society.” José Luis Rubio, Deputy President of WASWAC.

“So, the question for Soil Scientists is as follows: Is there the possibility to prove that soil health is of primary importance for humankind? This would require that, in coping the predictable future limitations for studying and researching soil degradation processes and in the application of prevention and remediation practices, we should change the soil paradigm, providing an up-to-date, effective and to-the-purpose definition of soil: "Soil is an economic resource! It develops naturally and deeply influences social systems and public policy”. Carmelo Dazzi, President of the ESSC, University of Palermo (Italy)

With regard to “Tips for active learning at home during COVID-19: “Disrupted classes, Undisrupted Learning”, UNESCO International Research and Training Centre for Rural Education (UNESCO INRULED) and Smart Learning Institute of Beijing Normal University (SLIBNU) are releasing a special publication entitled “Handbook on Facilitating Flexible Learning During Educational Disruption: The Chinese Experience in Maintaining Undisrupted Learning in COVID-19 Outbreak”. This handbook aims to define the term “flexible learning” with vivid examples and touching stories. It describes several implemented flexible online learning strategies during the COVID-19 outbreak. These strategies are presented based on six dimensions, namely (a) infrastructure, (b) learning tools, (c) learning resources, (d) teaching and learning methods, (e) services for teachers and students, and (f) cooperation between government, enterprises, and schools.

Download the WASWAC April issue and the guidebooks through the following links:


The United Nations General Assembly declared 2020 as the International Year of Plant Health (IYPH). The year is once in a lifetime opportunity to raise global awareness on how protecting plant health can help end hunger, reduce poverty, protect the environment, and boost economic development.

Plant health is increasingly under threat. Climate change, and human activities, have altered ecosystems, reducing biodiversity and creating new niches where pests can thrive. At the same time, international travel and trade has tripled in volume in the last decade and can quickly spread pests and diseases around the world causing great damage to native plants and the environment.

Protecting plants from pests and diseases is far more cost effective than dealing with full-blown plant health emergencies. Plant pests and diseases are often impossible to eradicate once they have established themselves and managing them is time consuming and expensive. Prevention is critical to avoiding the devastating impact of pests and diseases on agriculture, livelihoods and food security and many of us have a role to play. Read More

Healthy soils mean healthy plants and subsequently healthy people. Conservation Agriculture is therefore of the essence to produce healthy plants - Dr Hendrik Smith, a Conservation Agriculture (CA) facilitator at Grain SA and the Maize Trust. Read More
Government of Ethiopia embarks on building the pillars for massive adoption of Conservation Agriculture

Hon. Dr. Kaba Urgessa delivering his opening speech during the workshop

The Government of Ethiopia embarks on building the pillars for massive adoption of Conservation Agriculture.

Conservation Agriculture key in meeting UN Sustainable Development Goals

A combine harvester equipped with the Super SMS (left) harvests rice while a tractor equipped with the Happy Seeder is used for direct seeding of wheat. (Sonalika Tractors)

Researchers found that many conservation agriculture practices had significant benefits for agricultural, economic and environmental performance indicators, whether implemented separately or together. Zero tillage with residue retention, for example, had a mean yield advantage of around 6%, provided farmers almost 25% more income, and increased water use efficiency by about 13% compared to conventional agricultural practices. This combination of practices also was shown to cut global warming potential by up to 33%.

This comes as good news for national governments in South Asia, which have been actively promoting conservation agriculture to increase crop productivity while conserving natural resources. South Asian agriculture is known as a global "hotspot" for climate vulnerability.

"Smallholder farmers in South Asia will be impacted most by climate change and natural resource degradation," said Trilochan Mohapatra, Director General of ICAR and Secretary of India’s Department of Agricultural Research and Education (DARE).

“Protecting our natural resources for future generations while producing enough quality food to feed everyone is our top priority.”

“ICAR, in collaboration with CIMMYT and other stakeholders, has been working intensively over the past decades to develop and deploy conservation agriculture in India. The country has been very successful in addressing residue burning and air pollution issues using conservation agriculture principles,” he added.

Read More on Ethiopia CA Stakeholders’ Workshop
Are small-scale and emergent farmers able to practice mechanized Conservation Agriculture in Zambia? The Mechanized Conservation Agriculture (MCA) on-farm experiment at the Zambian-German Knowledge and Training Centre, situated at the Golden Valley Agricultural Research Trust is the surest answer.

Everybody in Zambia concurs with the reality of climate change since the impacts are visible across the entire nation. Small and medium-scale farmers who entirely rely on rainfed agriculture for both crops and animals’ production are the most affected. In the recent past, the unpredicted rainfall patterns have resulted in late planting leading to yield losses due to drought that follows. The rains come as late as December-January and end too early in the season, as opposed to the previous years when rainfall could start as in October and lasts until April. Because the rains are very erratic, they often cause unprecedented floods and massive soil erosion. This phenomenon is not only a scene in Zambia but also across entire sub-Saharan Africa (SSA) and the world over.

These challenges facing the Zambian farmers call for viable and sustainable solutions. The solutions should be not only feasible but also sustainable while mitigating the impacts of climate change and adapting to its effects. Like other developing countries, Zambia is faced with the reality of poverty and food insecurity due to unsustainable agriculture. Thus, through climate-adapted farming approaches, the agricultural sector can secure farmers from climate-related losses.

The climate-adapted farming methods project (CAFM), an initiative of the Zambian-German Agricultural Knowledge and Training Centre (AKTC), could not be timelier and more relevant. AKTC is a bilateral cooperation between the German Federal Ministry of Agriculture and Food and the Zambian Ministry of Agriculture. It is located at the Golden Valley Agricultural Research Trust (GART) in Chisamba. The CAFM project, which started in 2019, is aimed at minimizing climate-related yield losses and securing income among small-scale and emergent farmers through the practice of MCA.

Through Mechanized Conservation Agriculture, farming as a business is not only economically viable but also sustainable since the conservation of soil and water translates to better soil quality and improved yields. To achieve this desired goal, CA mechanization in all its forms: animal traction, 2-wheel tractors, four-wheel tractors and the associated implements should be the focus of both the farmers as well as the government and the private sector promoting the technology. Godfrey Omulo. Read More

A modified MF100 planter mounted on 60 hp 2-wheel MF tractor being tested by Mr. De Jager. Photo: Courtesy of Mr. Anschuetz, the AKTC Zambia Team Leader.

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Women in Malawi are inspiring the next generation of smallholder farmers to adopt climate-smart technologies

“I started practicing the farming that does not demand too much labour back in 2004,” she explains at her 2.5-acre farm. “Over the years the process has become easier, because I have a full understanding of the benefits of techniques introduced through the project.”

In Malawi’s family farms, women often carry the burden of land preparation and weeding in the fields while juggling household responsibilities, contributing to widen gender differences already prevalent in the community.

Mwangonde observes that learning climate-smart techniques — such as minimum tillage, mulching and planting on flat land surfaces — has given her an advantage over other farmers practicing conventional agriculture.

At the beginning, like other farmers in the area, Mwangonde thought conservation agriculture and climate-smart techniques required a lot of work, or even hiring extra labour. As she tried this new approach, however, weed pressure in her plot decreased gradually, with the help of mulching and other techniques, and the labour required to maintain the fields reduced significantly. This allowed her to have extra time to add value to her products and sell them on the markets — and to rest. Read More
Capacity Building of Extension Workers in Ghana improves adoption of Conservation Agriculture

The RFS Ghana project, the Sustainable Land and Water Management Project (SLWMP), works to promote improved sustainable land and water management practices in Ghana’s Northern Savanna with the ultimate goal of realizing a diversified and resilient economic zone in the north with significant environmental benefits. The project is being implemented using an integrated landscape management approach by four Implementing Agencies: The Ministry of Environment, Science Technology and Innovation; the Environmental Protection Agency; the Directorate of Crop Services under Ministry of Food and Agriculture and Forestry Services; and Wildlife Division of the Forestry Commission.

A key component of the RFS Ghana project is capacity development of both national and sub-national institutions and actors in order to improve adoption of successful approaches and technologies for sustainable land management. Through the project, capacities of public extension service providers, as well as lead farmers who provide farmer-to-farmer extension services, are being built through a series of training sessions to improve extension delivery in support of a transition to more sustainable and productive agricultural practices.

On 18-23 November 2019, the fourth annual training session on Conservation Agriculture (CA) was held at the No-Till Centre in Amanchea in the Ashanti Region of Ghana. The training sought to enhance knowledge of CA principles and practices and to support peer-to-peer extension within targeted communities. At the training session, participants observed and practiced the use of the jab planter to plant in rows and the roller crimper to prepare land for direct planting with the two-roll “no-till planter”.

To encourage free exchange of information and maximize participation, Mr. Kofi Boa, Director of the No-Till Centre, utilized a participatory learning approach when facilitating the modules. Extension workers and farmers went on field tours, visited demonstration plots, and received hands-on practical training with an emphasis on a “learning by doing” approach to the application of new technologies and practices. Training modules covered the principles and practices of CA, on-farm water harvesting, soil erosion control, land preparation and planting, soil health, and the development of CA action plans by participants. Read More

Participants at the training session

Climate-Smart Agriculture means more time for Eswatini women farmers

Aside from the seven hours Mantfombi Msibi (63) would spend daily during the Eswatini farming season planting, applying herbicides and weeding her 1.2-hectare maize field, she would also spend E1 750 ($125) on tractor services. It was a huge cost of both time and money. But this season, Msibi will be benefiting from climate-smart farming technology that has opened up a new world of farming to her, saving her time in the process.

“Not only was this activity laborious for my ageing husband and I, but one of our grandchildren would be forced to abscond from school for several days just to help out with the work,” Msibi told IPS.

Besides cultivating the field, the family also has livestock; cattle, pigs and chickens, which also have to be taken care of. That excludes other household chores such as cooking and looking after her three younger grandchildren all whose parents passed away.

This season, Msibi was introduced to climate-smart agriculture techniques, which has significantly improved her life and that of her family. Compared to the amount of work that she used to do for many hours a day over several weeks, with the new climate-smart techniques of direct seeding and boom spraying, she only spends about five hours cultivating her field.

Now Msibi has no need to till the soil anymore because climate-smart technology destroys weeds, thereby saving her from the laborious weeding process. According to FAO, 50 to 75 percent of farm labour time is spent on weeding by hand, with 90 percent this being done by women.

“I now have enough time to look after other family responsibilities. Most importantly, I get time to rest and none of the children is forced to abscond from school because of farming,” said Msibi. Msibi is one of the beneficiary farmers under the Ministry of Agriculture’s conservation agriculture programme, whose aim is to improve the uptake of Climate-Smart Agriculture.

According to Jabu Dlamini, the conservation agriculture chairperson for the Manzini Region, this technology applies herbicide that destroys weed without any residual effect to the soil. “It’s a very environmentally friendly technology and that’s why the government is promoting it as a CSA technique,” said Dlamini to IPS. Read More
New CA Book Series: Advances in Conservation Agriculture, Volumes 1 & 2

The books titled ‘Advances in Conservation Agriculture: Volume 1 (Systems and Science) and Volume 2 (Practice and Benefits)’ edited by Prof. Amir Kassam provide reviews on development of CA systems globally and elaborates on science underlying the key CA system components as well as summarizes current research on CA systems illustrating how CA systems make efficient use of production inputs such as water, nutrients, energy and addresses challenges in such areas as weed, insect pest and disease management.

The editor is Professor Amir Kassam, University of Reading, and Moderator, Global Conservation Agriculture Community of Practice (CA-CoP), FAO, Rome, Italy. Amir is along-time member of TAA, he heads our Land Husbandry Group and was formerly Chair of TAA.

- Reviews the development of CA systems globally and elaborates on science underlying the key CA system components.
- Assesses the latest evidence on improving soil and crop health and CA system resilience through the application of the core CA system principles.
- Includes case studies reviewing current science on optimizing CA cropping systems involving cereal, legume, horticultural and tree crops as well as integrating livestock in CA systems.

- Summarizes current research on optimizing CA system practices and their ecological, economic and social benefits.
- Elaborates on how CA systems make efficient use of production inputs such as water, nutrients, energy and addresses challenges in such areas as weed, insect pest and disease management.
- Reviews the central issues of improvement in yield, portability and ecosystem services as well as climate change adaptability and mitigation in CA systems.

See the flyer [here](#) for more details on access and availability.

Welcome Earthworms: A documentary on the CA and soil regeneration

Welcome Earthworms is a documentary on conservation agriculture and soil regeneration. Directed by François Stuck.

Based on interviews with farmers and others who share their experiences and optimism on how agriculture can help to build a more sustainable future.

The aim is to maintain a balance between economic, social and environmental objectives. This is a major change in human development. For the first time since humans cultivated the earth, they do so by regenerating the soil and not by exhausting it.

The film makes us discover the challenges of sustainable agriculture by giving voice to those who practice it and invest in its development.

Agriculture is at the heart of many challenges that we must meet, whether social, environmental or economic. Biodiversity, soil erosion, water management, reduction of intrants, so many subjects that are covered in the documentary. [View the Documentary](#)
If the United Nations Sustainable Development Goals are to be achieved, smallholder farmers in Africa will need to embrace new technologies such as conservation agriculture (CA) in order to increase both their productivity and sustainability. For the several decades there has been significant progress in promotion, adoption and upscaling of conservation agriculture and other climate smart technologies. Scaling agricultural innovations should take into account complex interactions between biophysical, social, economic and institutional factors. The infographic presented below illustrate systematic interactions of these factors as Africa moves towards sustainable agriculture and development.

The infographic can be accessed in the link Policy & Innovation Pathways.

Events and Opportunities

Notice on the postponement of commencement of Conservation Agriculture - Massive Open Online Course (CA-MOOC)

ACT had planned to kick off its first CA MOOC on May 4th 2020, but due to the global outbreak of the deadly Coronavirus (Covid-19) which has pose serious health challenge to humanity and disrupted livelihoods including many programs, ACT wishes to notify its members and friends that the commencement date has been postponed until further notice.

We will continue to monitor the situation and will keep updating our dear members and friends of the new dates in the ACT platforms.

Therefore, be on the lookout for the new development as regard to this. Stay safe.

The 8th World Congress on Conservation Agriculture (8WCCA), POSTPONED to 2021

The International Organizing Committee has decided to postpone the 8th World Congress on Conservation Agriculture (8WCCA) by a period of one year. This decision has been taken based on the current situation with Coronavirus (CodVid19), measures taken by Authorities of many countries to minimize the effects of this virus, and the difficulty in making a prognosis. (Click here to see the official Statement).

Read More about 8WCCA Postponement

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