



Department of Research and Specialist Services Report for the Month of November/December 2014

Ministry of Agriculture, Mechanisation and Irrigation Development

Department of Research and Specialist Services

Report for the Months of 1st November to December 15th 2014

SUBJECT	BRIEF
<p>Disease and Pest Surveillance</p>	<p>Army worm surveillance:</p> <ul style="list-style-type: none"> The International Red Locust Organization for Central and Southern Africa (IRLCO-CSA) continues to backstop the country by providing pheromone traps for armyworm. A total of 174 additional armyworm pheromone traps were installed around the country. New areas included Bulawayo; Umguza, Tsholotsho, Hwange, Lupane and Victoria Falls in Matabeleland North Province and Plumtree in Matabeleland South. This was in response to the severe outbreaks that emanated from Hwange area and swept through the latter areas last season. Monitoring in old traps was done at two farms in Bindura. No armyworm moth catches have been recorded to date. In its November 2014 report, IRLCO-CSA took note of the commencement of the Armyworm outbreak season in most Member States. The organization urged member states to strengthen monitoring and communication of moth trap data to national coordinating centres. This information is then shared in the entire region. With the onset of effective rains, the surveillance system in Zimbabwe has been activated. <p>Fruit fly Management:</p> <ul style="list-style-type: none"> Africa has a number of fruit fly species, including at least 12 of economic significance, which restrict international marketing of fruits and vegetables. In addition, four exotic species of <i>Bactrocera</i>, i.e. the Melon fly (<i>Bactrocera cucurbitae</i>), the Invader fly (<i>Bactrocera invadens</i>), Peach fruit fly (<i>Bactrocera zonata</i>) and the Solanum plant spp. fruit fly (<i>Bactrocera latifrons</i>), have invaded Africa. The Government of Zimbabwe has continued to finance the in-country fruit fly surveillance and eradication, using its agricultural revolving funds. The current effort by the Plant Quarantine Services Institute and Plant Protection Research Institutes is on determination of the <i>Bi</i> status, while quarantining and eradicating the pest in areas of known outbreaks such as Bindura and Murehwa. Data is continuously being collected in the surveillance, to support decisions on trade in fruits and

	<p>vegetables. A total of 671 fruit fly trapping sites have been established throughout the country since 2010.</p> <ul style="list-style-type: none"> • Thirty five countries in Africa, with Zimbabwe now included, have detected <i>Bactrocera invadens</i> (Bi). From June 2011 to October 2013, Zimbabwe was funded by COMESA-TMSA project to carry out pilot surveillance for fruit flies. The nation-wide surveillance focused on determining the status of <i>Bactrocera invadens</i> in the country. The pest was detected in Bindura, Mashonaland Central Province in 2012 and in Murehwa, Mashonaland East Province in 2013. • Following the launch of the FAO-funded TCP on fruit fly control in border areas of Botswana, Namibia, Zambia and Zimbabwe (BONAZAZI) in April 2014, another regional TCP was also launched in Livingstone, Zambia on 17-20 November 2014, to cover the rest of SADC. <p>Other:</p> <ul style="list-style-type: none"> • The Quarantine services continued to support producers on trade in fruits. Samples of <i>Prunus</i> species were collected from Church hill farm for determining presence of <i>Monilinia fruiticola</i> and the results were negative, allowing the farm to continue with exports. • From the current survey to determine geographical spread and severity of Aflatoxins in groundnut, 64 groundnut samples from Muzarabani were analysed for the fungus <i>Aspergillus flavus</i>. All the samples tested positive to the fungus. Detailed work on level of severity is currently being done. The survey was a precursor to a planned nation-wide project on control of Aflatoxins in groundnut production.
<p>Research and Information Sharing</p>	<p>Research Projects:</p> <ul style="list-style-type: none"> • Research Review and planning meetings were held at the Lowveld Research Institute and Horticulture Research Institute on the 13th and 18th November, respectively. Highlights at the meetings included presentations on cassava-maize intercropping systems; guava, mango, deciduous fruits and vegetable technology development trials. • The Division of Livestock and Pastures Research held its review and planning meeting in Macheke from the 9 to 12 December 2014. The Deputy Minister for Livestock, Hon. P. Zhanda, graced the meeting on Thursday the 11th. Presentations made included 9 papers and 7 posters in the area of livestock research; 4 papers and 3 posters in the area of rangeland and pastures

research; and a total of 4 new proposals. Some of the research projects whose results were reviewed will continue in order to generate conclusive results. Reports were also given on infrastructure rehabilitated during the year, as well as strategies for improving revenue inflows for the Division, in 2015. The Division has produced a “*Practical guide to forage production, conservation and utilization*”. It will be a useful addition to farmer literature. However, less than 100 sample copies were printed and the Division was encouraged to source funding for mass production, in a user-friendly A5 size in 2015.

- Henderson Research Institute is evaluating different poultry layers feed (using 14 week H and N Brown Nick layers) for their performance in egg production and quality. This will add to the body of knowledge and benefit egg producers, if the feeds do qualify for registration.

Genetic Resources:

- The work to electronically capture all accessions (of various plants) stored in the national genebank for food and agriculture, still continues. In the period of the report, more than 200 accessions were captured using MS Excel. The target is to create an electronic database of all the accessions stored in the genebank.
- To date, about 3,500 accessions have been captured electronically out of 6,000 available in the genebank. Simultaneously, detailed characterisation is being done, back to back with planned grow-outs to maintain viability of seed in long storage.

Information Sharing:

Educational Groups:

- Matopos Research Institute is currently cooperating with the Kezi District Veterinary Officer in training 10 male & 3 female lead smallholder dairy farmers from Mashonaland East Province on artificial insemination (AI). The funding for this modular training is drawn from the DANIDA–SNV Agricultural Dairy Revitalization Project.
- Matopos Research Institute is also working with a group of farmers in Irisvale (an old resettlement area for smallholders in the Mzingwane District) on fodder production. At the initial stage, two sites of 0.5 ha each will be established under farmer management. The aim is to inculcate a culture of fodder production for supplementary dry season livestock feeding among communities.

Visitors to research stations:

	<ul style="list-style-type: none"> • Ten (10) clients visited Henderson Research Institute (Fisheries Section) for information on fish farming and for booking of fish fingerlings. Four (4) were from Concession, 2 from Harare, 2 from Masvingo and 2 from Mutorashanga. • The Lucydale Farm (which holds the Afrikander herd) on Matopos Research Station has been plagued with a problem and elusive hyena. The Institute has since sought assistance from Chipangali Wildlife Orphanage to try and trap it. • Matopos Research Institute cooperated with the Livestock and Meat Advisory Council (LMAC) to hold a “<i>Stockman’s Course</i>” on 27 November 2014. The target were stockmen (general hand-level livestock handlers on farms). However, a total of 109 people, from mixed levels of farm operatives, participated – pointing to the need for structuring courses that are suitable for various levels. It is planned that such courses would be properly graded for various farm operatives and held regularly from next year onwards. <p>Training:</p> <ul style="list-style-type: none"> • The “<i>Weed Identification and Management Course</i>” was conducted by the Agronomy Research Institute’s Weed Research Team at Henderson during the 1st week of November. A total of 498 participants, including farmers, students, agrochemical company representatives and extension operatives, attended. Of these, 259 were male, while 239 were female.
<p>Service Provision</p>	<p>Product Support to Growers/Farmers During the Period:</p> <p>Plant Health Permits:</p> <ul style="list-style-type: none"> • 1531 plant import permits were issued for the importation of cereals, processed food products, pulses and nuts, propagation material, spices, tobacco, vegetables, wood and wood products, growing media and fruits. • 1713 phytosanitary certificates were issued for export of Cereals, Tobacco, wood and wood products, processed products, propagation material, pulses, nuts and fruits to countries within SADC, EU and beyond. • A total of 276 transit import permits were issued for assorted fruits and vegetables, wheat bran, molasses, soya meal, yeast, tea, coffee, spices, frozen vegetables, green bananas, yellow maize corn starch and maize bran. <p>Seed permits:</p>

	<ul style="list-style-type: none"> • Total of one hundred and sixty-three (163) seed samples were tested for local certification which included legumes, cotton, tobacco, cereals. Most of the samples passed. • A total fifty-five (55) seed samples, which include sorghum, cotton and maize were tested for Orange International Certification (O.I.C) and all of them passed. • Field inspections were done for seed potato resulting in 11.6 ha of the variety Diamond and 41.5 ha of variety Mondial being approved, respectively. Other inspections for BP1, Jasper, Amethyst and more Diamond are still in progress. <p>Imports:</p> <ul style="list-style-type: none"> • A total of 378 824.305 kg of seed was imported into the country for resale and for research from South Africa, Zambia, Malawi, Kenya Thailand and Slovakia among other countries. The commodities covered carrots, tomatoes, onion, maize, groundnuts, millet, sorghum, and tobacco. <p>Exports:</p> <ul style="list-style-type: none"> • A total of 302 098.5 kg of soybean, maize, tomato, onion sorghum other commodities were authorized for export out of the country for research and resale during the period covered by the report. <p>Pesticides Registration:</p> <ul style="list-style-type: none"> • 106 pesticide-related permits were issued to various companies for renewals and importations as well as 367 transit permits. <p>Soil Analytical services:</p> <p>Some 533 soil samples were analysed for the determination of crop nutrition requirements. This included both full and partial analysis as well as electrical conductivity and pedological analyses. Appreciation of soil analytical services has gone down in recent years and there are plans for farmer education to create greater awareness and appreciation of the benefits of soil fertility assessments.</p>
<p>Cross-Cutting Issues</p>	<p>SADC Seed Harmonisation:</p> <ul style="list-style-type: none"> • The SADC variety release and harmonisation protocol came into effect following the launching of the system in Lusaka, Zambia on the 26th November 2014. A variety released in 2 SADC countries is eligible to apply for registration on the regional platform. However, additional clarification on how to handle public good varieties from International Agriculture Research Centres (IARCs) and national breeding programmes is still required.

	<p>Open days/ Field Days:</p> <ul style="list-style-type: none">• Plant Quarantine Services hosted a cotton destruction awareness campaign day at Muzarabani in November. It was attended by community members, traditional leaders, local politicians and senior government officials. The awareness campaigns are designed to improve compliance, by growers, with the requirements of the <i>Plant Pests and Diseases Act (Chapter 19.08)</i> in the management of diseases and pests for better productivity and quality of cotton.
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Signature:



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