Division for Social Impact



Initiative by Faculty

AgriScience

Date: 2 November 2018

Number of Initiatives: 21

Initiative Title	Initiative Description	Initiative Owner
Time study protocol development	This Time Study protocol was developed for the South African and international Forest Industry. These standards provide common but internationally compliant methodologies and their implementation will align the South African Forestry Industry with international forest operations development, productivity improvement and also forest operations systems modernisation. These standards have been accepted as the norm by South African Industry associates for use in the Industry. The protocol includes: Introduction to time study methodologies and forest operations research; It provides a decision support tool to help select the appropriate time study technique for different objectives; Documentation including the complete guidelines and time study background information forms; It also provides a statistical analysis decision support tools and prebuilt analysis code; It allows access to and instructions for android applications: The TimeStudy app and Deciminute Stopwatch; One of the main objectives is the development of a productivity database of raw time study and productivity data for access by contributing members.	Ackerman, Pierre [packer@sun.ac.za]
Plant Diagnostiese Kliniek	Opleiding aan studente en industrie. Dienslewering aan produsente, algemene publiek en opkomende boere.	Coertze, Sonja <sc2@sun.ac.za></sc2@sun.ac.za>
Career Guidance in Forest and Wood Science	Educating school learners about careers in Forest & Wood Science.	Crafford, PL, Mnr <pcrafford@sun.ac.za></pcrafford@sun.ac.za>
Hosting school visits: Horticulture Department	Schools from disadvantaged communities are facilitated to visit the Dept of Horticulture through the involvement of one of our industry partners, the Hortgro Services (The body that is responsible for administrative services and financial administration, as well as some functional services such as transformation and training, information, communication and social programmes of the Deciduous Fruit Industry). Learners in Grade 7 or Grade 11 visit us at the Dept in groups of 20-25 learners. In our discussion/contact time we aim to stimulate an interest in science in general and to introduce horticulture as a possible career opportunity to the learners.	Cronje, Paul [paulcronje@sun.ac.za]

Short course on Postharvest	The aim of the Short Course is to improve the attendees' understanding of postharvest physiology. Therefore the	Cronje, Paul
Physiology and Technology	emphasis of this course is placed on the underlying principles of plant physiology / horticulture, rather than	[paulcronje@sun.ac.za]
	individual recipes for the handling and postharvest storage of specific crops. Extensive use of examples will be	
	made from a wide range of crops. Attendees therefore will learn why certain protocols have been developed, and	
	need to be followed for each type of product. Understanding and implementation of this knowledge could ensure	
	improvement in product quality by preventing losses during the postharvest handling chain.	
Western Cape Forestry	Academic representative on the Western Cape Forestry Sector Forum which is an organisation facilitated by DAFF	Kunneke, Anton
Sector Forum	to empower community forest ownership and management. It is a platform for communities living in and around	<ak3@sun.ac.za></ak3@sun.ac.za>
<u>Representation</u>	forest areas to engage in participative management with government and companies for sustainable solutions.	
Genadendal Honeybush	Institutional partnership The Genadendal Honeybush Knowledge Partnership was established in 2013 with	Malgas, Rhoda Malgas
Knowledge Partnership	colleagues from Botany & Zoology (Prof. Alex Valentine), Conservation Ecology and Entomology (Associate Prof.	[rmalgas@sun.ac.za]
	Shayne Jacobs, Ms Rhoda Malgas), and Agronomy (Dr Marcellous le Roux). Over the last 6 years, we have produced	
	1 MSc, contributed to 1 completed PhD, and seen the completion of 9 honours level projects. The local land-users	
	have also supported the work of two Dutch interns from Wageningen University (WUR), The Netherlands. Local	
	informants in the GHKP have been instrumental to the development of graduate attributes, research and teaching	
	and learning of students from Geography, Conservation Ecology and Entomology, and the MSc(Sustainable	
	Agriculture) at SU. We are grateful for knowledge-sharing, local insights and logistical support. We also enjoy	
	institutional support from the Genadendal Museum, the Hesther Dorathea Hostel, the Emil Weder High School,	
	Transformation Committee, CapeNature, Theewaterskloof Municipality and the Genadendal Farmer's	
	Association. Research and community outputs: The initiative supports regular interactions with local land-users at	
	Genadendal where we discuss research results, planned activities and issues of agricultural and environmental	
	concern. Thus far we have investigated: the establishment of honeybush as an indigenous crop (PhD, ongoing),	
	local ecological knowledge of local residents concerning wild honeybush (internship, 2015), local practice of	
	honeybush germination of reering of seedlings (honours, 2015), and youth interests in agriculture (internship,	
	2017), and athropods associated with honeybush for ecosystem goods and services (MSc, 2016). Funding support &	
	planned activities: The initiative received funding from the SU Division for Social Impact in October 2018. Until	
	then, the project was supported with research funds of students and staff (e.g. NRF, NICHE, SASA project). Planned	
	activities for 2018/2019 include: a) Community seminar at Genadendal where graduates will share research	
	findings of their projects from 2014-2018. b) Publication of a Community Research Journal recording the research	
	findings of graduate research (2012-2018) c) A workshop with local decision-makers (e.g. CapeNature,	
	Theewaterskloof Municipality, Genadendal Transformation Committee, Genadendal Farmer's Association) for	
	presentation of research findings and planning.	
Oenology 244	Students carry out a health and safety assessment and write a report for a winery in conjunction with their winery	Mckay, MA, Me
	partners. The report is viewed by the Oenology lecturer and is submitted to the winery partner for their	<marianne@sun.ac.za></marianne@sun.ac.za>
	information. 2014/5 proved very successful. This will be extended to include winery waste treatment in the future.	_

Viticulture and Oenology Extended Internships	The Viticulture and Oenology 478 module involves a seven month internship in industry, mentored by experienced and selected winemakers and viticulturists. Students are immersed in the workplace with industry and community partners. All staff members in the Viticulture and Oenology Department are involved to an extent with our partners in industry.	Mckay, MA, Me <marianne@sun.ac.za></marianne@sun.ac.za>
Pinotage Youth Development Academy (June to November- Course 1)	This is the fourth course run by the Department of Viticulture and Oenology in support of our PYDA community partner. This course consists of two modules over the initial six months of the PYDA new intake of students, and consists of training in chemistry and laboratory techniques, some sensory evaluation, wine marketing and legislation.	Mckay, MA, Me <marianne@sun.ac.za></marianne@sun.ac.za>
Oenology 214 (Service Learning): The Wine Trade	Oenology 214 Service-Learning Module: The Wine Trade. This module explores how Service Learning, as a transformative pedagogy, is applied in a science-based curriculum to enhance student learning and critical citizenship. Students in Oenology undergo a month long service placement in tasting rooms and wine estates in the Cape Winelands. Here they interact with staff, clients and workers from the wine industry, learning about products, consumers and trade aspects. Societal partners (tasting room managers, other workers and winemakers), chosen on the basis of their ability to engage the students in learning, and the feedback and success of previous placements, help to shape the student's view of themselves and their place in the broader context of the South African industry.	Mckay, MA, Me <marianne@sun.ac.za></marianne@sun.ac.za>
Biomass characterisation for energy production	Measurement and analysis of the feasibility of various physical biomass properties for energy production	Meincken, Martina, Prof [mmein@sun.ac.za]
Integration of ICT and genomics to improve smallholder sheep farming systems	This is a research project which involves the use of information and communication technology and genomics to improve smallholder sheep farming systems. The aim of this study is to increase the output of sheep production by smallholder farmers in the Western Cape. An increase in output will result in an increase of economic return through the marketing of sheep products (meat and wool). This will be done by implementing sound animal breeding and management programs. Information and communication technology will assist in the development of a smartphone application to record information on the breeding and management implemented by the farmers. Further on blood samples will be collected from sheep of smallholder farmers for DNA analysis which will be used to determine superior or elite individuals within their sheep flocks.	Molotsi, AH, Dr [annelind@sun.ac.za]
Promoting biodiversity conservation in the agriculture sector	Talking to farmers at meetings and workshops to discuss the role that biodiversity plays in correct land usage	Pryke, JS, Dr [jpryke@sun.ac.za]
Scientific and technological initiatives to prevent biodiversity losses across commercial forestry landscapes	This initiative involves setting up and presenting at workshops on conservation / landscape ecology for forestry managers and their supply chain. This also involves linking up with WWF's New Generation Plantation Programme on plotting a more sustainable way forward for plantations in the future.	Pryke, JS, Dr [jpryke@sun.ac.za]
Agric Economics: BFAP agricultural outlook	The Bureau for Food and Agricultural Policy (BFAP) comprises an informal network of researchers from the Universities of Pretoria, Stellenbosch and the Western Cape Department of Agriculture. Annually a BFAP baseline	Punt, Cecilia <puntc@sun.ac.za></puntc@sun.ac.za>

Agric Economics: Farmers days talks	document is published, containing medium term projections of price and production volumes for different agricultural industries and farm level models for strategic decision making. The BFAP baseline document is released around August of every year during two one day seminars for role players, one which is held in Pretoria and the other in the Western Cape. The lecturers at the Department of Agricultural Economics frequently act as speakers at farmers days and meetings of agribusinesses.	Punt, Cecilia <puntc@sun.ac.za></puntc@sun.ac.za>
Marine Aquaculture Vocational Training Centre in Saldanha	The concept of a Marine Aquaculture Vocational Training Centre (Aqua Skills Factory or Aquaculture Centre of Excellence) was borne from the need to provide the necessary vocational skills to people who are interested to participate and make a living in the aquaculture industry. A strategic drive towards the development of South Africa's aquaculture industry through Operation Phakisa Oceans Economy by the National and Provincial Governments further supports the need for a point whereby learners with lower educational levels can obtain skills in aquaculture farming and business development. The proposed Aqua Skills Factory will consist of a world class Aquaculture training farm and venue that will have the ability to deliver vocational focused training programs for learners from across South Africa and bring aquaculture expertise from all over the world to South Africa. The training venue will consist of lecturing rooms, conference hall, cafeteria, restrooms, hostels and administrative offices. Various forms of training will be presented including training workshops, short courses, skills programs, learnerships and internships. The training farm will provide a variety of specialization species options including abalone, salmon, mussels, oysters, tilapia, trout and aquaponics.	Stander, HB, Mnr [hbs@sun.ac.za]
Agriculture Youth Training and Development Initiative	The primary objective of the Agriculture Youth Training Centre is to offer skills development and vocational training in the agricultural sector, for either employed or unemployed candidates or learners. The focus however will be on the unemployed youth, women and persons with disabilities who have not finished their formal school careers. The centre will initially offer skills development and vocational training in NQF levels 3 & 4 in poultry farming, freshwater aquaculture and vegetable gardening which will include aquaponics as a technology.	Stander, HB, Mnr [hbs@sun.ac.za]
Agric Economics: ReNAPRI	Regional Network of Agricultural Policy Research Institutes (ReNAPRI) is a regionally coordinated group of national agricultural policy research institutes duly established and operating in Eastern and Southern Africa member states. The vision of ReNAPRI is to support national agricultural policy research institutes in Africa to be centers of excellence that guide and inform national and regional agricultural and food security policy issues. The mission of ReNAPRI is to support dynamic collaboration amongst national agricultural policy research institutes to produce sustainable and high-quality research, outreach and capacity development that promotes national and regional agricultural policy objectives.	Traub, LN, Me [traubl@sun.ac.za]
Part-time e-learning	Learning courses to employees in the wood industry	Wessels, CB, Dr <cbw@sun.ac.za></cbw@sun.ac.za>