

Açrisoft Systems NEWSLETTER

Eighth Edition, Oct. - Dec. 2013

Message from the Management

A look back at the year 2013 and plans for 2014

Dear Customers and Friends,

On behalf of the entire Agrisoft Systems staff I would like to wish you a happy and successful new year 2014 and hope that you had a wonderful festive season. As usual, the beginning of a new year marks a time for reflection both about the past year and the plans for the future. 2013 was a busy time for the Agrisoft Systems development team, with the release of new Add-In and extension programs for OMP as well as the release of the new OMP version 8.7.2 in the summer.

The first major project to be completed in 2013 was the new Add-In OMP Harvest Round Recording (OMP-HRR). This Add-In marks the first step in moving from monthly to daily data recording in OMP, focusing first on harvesting and production data. The more detailed base data allows for more in-depth and varied production reporting. The large selection of new built-in reports show production

Main menu 1.0	Agrisoft Demo Estate Harvest round recording						
Version 1.0.02	Main Menu						
	Data analysis	Data entry					
		Data import					
	Reports	Data export					
	Chart	FILTER					
	Data validity errors found						
	Exit OMP Add-in						
Site-specific Oilpalm Estate Ma	anagement	Agrisoft-Systems					

Figure 1: The OMP-HRR main menu.

and yield data on daily, weekly, fortnightly, 4weekly and monthly aggregation levels and include data on harvester productivity and comparisons of actual performance and budget. The OMP-HRR Add-In has been successfully trialed and



is being used by some of our customers based in Guatemala and in Indonesia.

Main menu	🖾 View crop budget 🗙 🗙										
	Plantation	Division	YOP	YAP	Area (ha)	Yield (t/ha)	Production (t)	Replanting	New planting	â	
	Kara	Division One	1989	25	12.7	14.00	178				
	Nalik	Division Two	1989	25	400.6	14.00	5,608				
YCB	Noatsi	Division One	1989	25	439.9	17.00	7,478				
	Nalik	Division One	1989	25	67.9	14.00	951				
	Nalik	Division Two	1990	24	252.9	17.00	4,299				
	Noatsi	Division Two	1990	24	278.1	19.00	5,284				
	Noatsi	Division One	1990	24	205.1	19.00	3,897				
	Nalik	Division One	1990	24	257.3	17.00	4,374				
	Edit or add new budget	sw budget	m (mature are	(mature areas) 7 Avg.		7,395.7 112,90					
Re	Replanting detail	5			,						
	Plantation	Division	YOP	Rep	olant (Ha)	Rep. Keep	(Ha) Notes				
	Kara	Division One	20	18	12.7						
	_										
			Budget	year	< 2013	• >	Active data	year <	2013 🔹	>	
										Þ	

Figure 2: OMP-TYCB age profile definition.

The Ten Year Crop Budget application (OMP-TYCB) released in the spring of 2013 is a custombuilt tool to help plantation managers prepare longterm production budgets with ease. Based on the current plantation age profile and the estimated yield profile as a function of palm age, the application calculates the projected yield and production of the plantation for the coming 10 years. In this calculation, the aging of the palm stand as well as replanting effects including

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possible loss of area during replanting are automatically taken into account. We are confident that the OMP-TYCB application will form an extremely helpful tool for managers looking to predict the production of their plantation several years into the future, as is essential for planning of mill capacities and long-term sales commitments.

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Plantations		Yearly crop budget								
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Kara										
Mature area (ha)	684	974	862	595	1,124	1,174	1,181	1,274	1,324	1,324
Yield (t/ha)	16.9	1.9	11.5	8.5	10.3	12.9	16.0	17.9	21.2	23.0
Production (t)	11,597	1,887	9,933	5,035	11,557	15,112	18,916	22,764	28,013	30,444
Variance (%)	-	-84	426	-49	130	31	25	20	23	9
Madak										
Mature area (ha)	933	933	983	1,033	1,083	1,069	1,158	1,233	1,195	526
Yield (t/ha)	27.0	28.0	26.6	23.7	25.6	25.5	22.4	22.2	8.7	18.9
Production (t)	25,183	26,116	26,116	24,441	27,695	27,293	25,885	27,407	10,449	9,950
Variance (%)	-	4	-	-6	13	-1	-5	6	-62	-5
Nalik										
Mature area (ha)	1,438	1,576	1,583	2,185	2,235	2,285	2,267	2,261	2,373	2,373
Yield (t/ha)	11.8	11.9	8.5	10.1	14.4	17.4	20.0	22.5	24.2	24.9
Production (t)	16,977	18,705	13,422	22,119	32,199	39,707	45,213	50,759	57,427	59,172
Variance (%)	-	10	-28	65	46	23	14	12	13	3

Figure 3: Long-term crop budget with OMP-TYCB.

The OMP-AMIS version 8.7.2 forms the third major release of 2013. The new version includes stability improvements that ensure compatibility of OMP with Microsoft Access 2013. OMP version 8.7.2 also includes the possibility of switching between yield calculations in OMP using the overall block area and the mature area only. Furthermore, the new version of OMP-GIS allows for thematic maps to be filtered by division and by tree age. The new release includes a large number of other improvements and bug fixes relating amongst others to the climate charts and system settings modules of OMP-DBMS and the Crop Budget, Pesticide, Black Bunch Count and Smallholder Information Systems Add-In programs. A more indepth look at the new version can be found in the sixth edition of the Agrisoft Systems newsletter.

In the second half of 2013, the Agrisoft Systems



Figure 4: New filtering capabilities in OMP-GIS version 8.7.2.

development team started working on a major overhaul of the pest and disease recording module in OMP. The new version, which is scheduled to be completed in early 2014, will make it possible to track the development of a pest or disease outbreak over time and to document effectiveness of any corrective measures that were undertaken. In parallel, the programmers at Agrisoft have been working on a new version of the OMP Nursery application. This work aims to improve the speed and user-friendliness of the application and in particular to allow for easier recording of culling and seedling audit processes in the nursery. Of course, work on all OMP-AMIS applications is also on-going to add a number of different improvements and features, many of which were suggested or requested by our customers.

Beyond the development work, the Agrisoft Systems team also carried out a number of user training sessions in 2013. These training sessions covered topics ranging from data entry and data quality maintenance to advanced data analysis with OMP-DBMS and OMP-GIS and advanced statistical analysis of data exported from OMP. Training sessions held in either English or



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Indonesian at the Agrisoft Systems office in Yogyakarta are on offer almost year-round, while on-site training sessions can also be arranged on demand.

A number of exciting projects are planned for the coming year at Agrisoft Systems. One particularly important project is the planned development of the Banana Monitoring Program (BMP) for banana plantations. The Agrisoft team is looking forward to the new challenges and ideas that will undoubtedly arise in working with a new type of crop beyond the world of oil palm plantations. However, important work is planned also for the OMP-AMIS suite in the shape of a major overhaul from the bottom up. Amongst others, three main goals of this overhaul will be to optimize the data structure for more detailed daily data recording, to improve the user friendliness and menu structure and to make OMP independent of the Microsoft Access environment. A further new module for OMP is also planned which will help plantation managers easily work out cost-effective fertilizer recommendations for their plantation based on the nutrient requirements of the palms.

The remainder of this newsletter includes a profile of Nina Memenga, the Head of Systems Analysis and Software Design at Agrisoft Systems, as well as a list of planned and on-going development topics in the section "From the developer's desk".

Wishing you a successful and fulfilling 2014.

Yours faithfully,

Max Kerstan (Komisaris)







Who's behind OMP

Head of Systems Analysis and Software Design: Nina Memenga



This edition of the series "Who's behind OMP" provides a profile of Nina Memenga, the new Head of Systems Analysis and Software Design at Agrisoft Systems. Nina was born in Nordenham, Germany on the 9th of January 1983. After attending school in Tossens in North Germany, Nina completed her "Abitur" and graduated from

high school in 2002. During her school time, Nina developed a keen interest in technical and scientific issues and particularly enjoyed the subjects of physics and mathematics. This interest led her to pursue an apprenticeship at the "Niederelbe Schifffahrtsgesellschaft Buxtehude" after her graduation, with the aim of becoming a ship's mechanic. During the three year apprenticeship program, Nina gained a lot of experience in working with the complex technical systems that are modern ship's engines, before graduating with distinction in 2005.

After completing her apprenticeship, Nina decided to pursue her deep interest in logical and theoretical subjects further by enrolling at Heidelberg University with a major in physics. During the course of her studies, Nina very much enjoyed tutoring mathematics and physics courses for younger students. This experience in explaining complex technical concepts means that Nina is exceptionally qualified to help in the advanced user training and support sessions at OMP. In her Diploma thesis, Nina focused on exploring a





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particular class of models of theoretical particle physics with the help of automated computer searches. As her minor subjects, she chose mathematics and computer physics, deepening her knowledge of logical structures and the use of effective algorithms to efficiently solve complex numerical problems with the help of computers. Nina graduated with a Diploma in physics from Heidelberg University with excellent marks in 2012.

In 2013, Nina joined the Agrisoft Systems team in the position of Head of Systems Analysis and Software Design. Her background in theoretical and computer physics gives Nina excellent analytical and logical skills that enable her to quickly analyse complex systems and design efficient software solutions tailored to the needs of our customers. These unique skills are sure to

Who's behind OMP

prove a major asset for Agrisoft Systems in the coming years. As one of her first major projects, Nina will be heavily involved in the analysis of requirements and design of the Banana Monitoring Program, whose development is planned for the first part of 2014. Beyond this, Nina is working on a thorough analysis of the structure of the existing OMP program, with the aim of designing a revamped version of OMP that will be even more powerful as well as being better-structured and more user-friendly. Nina says: "I am delighted to be joining the Agrisoft Systems team and am looking forward to the many interesting challenges that are bound to crop up when working with the very complex OMP program. I am particularly looking forward to the development of the new BMP program for Banana plantations, which will mark a major step forward for Agrisoft Systems."





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From the developers desk

A selection of the on-going developments and plans which are part of our constant efforts to continue to improve Agrisoft products.

New Pest and Disease Module

- Record data on outbreaks based on individual event lds.
- Input data from multiple surveys on the severity of each outbreak.
- Visualize and report on development of the outbreak over time.
- Link recommendations for corrective measures and pesticide application to individual events.
- Record use of integrated pest management methods.

Long Term Data Plans

- Banana monitoring program for banana plantations.
- Fertilizer chooser Add-In for OMP.
- Simplify data structure and split of data between OMP and Add-In programs, remove redundancies.
- Standalone version of OMP independent of Microsoft Access.
- OMP Apps for Iphone and Android smartphones.
- Module to capture data on irrigation and water pumping.

This and That: General OMP Improvements

- Improve reporting of meteorological data such as photosynthetically active radiation, humidity, tensiometer readings etc.
- Add data on standard deviations of aggregated values to give a better picture of the statistical spread over the plantation.
- Improve program speed by reducing frequency of re-querying.
- Move towards tabbed window structure to make it easier to keep multiple forms open simultaneously.
- Include yield potential and budget on more reports, particularly in OMP-HRR.