Agrisoft Systems
NEWSLETTER
Fifty-second edition, Jan.— Mar. 2025

Message from the Management

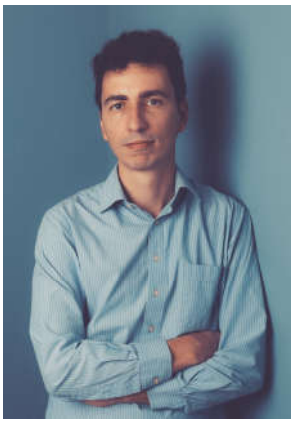
The importance of replanting

Dear Customers and Friends,

Replanting is one of the most critical long-term decisions in oil palm plantation management—yet it's also one of the most commonly delayed. In this edition, we take a closer look at why replanting is essential, the challenges it brings, and how OMP can support your teams in making well-informed, data-driven replanting plans.

Over time, oil palms naturally decline in productivity. Fruit yields gradually deteriorate, and tall palms become increasingly difficult and inefficient to harvest and prune. On top of that, newer planting materials available today offer significantly higher yield potentials than the older varieties still standing in many estates. Delaying replanting not only holds back productivity—it also increases operational costs and creates long-term risks.

One of the biggest barriers to timely replanting is the impact on cash flow. The cost of clearing and planting, combined with the loss of income during the immature period, makes replanting a tough sell—especially during periods of high palm oil prices. In those times, it's tempting to keep harvesting as long as possible. However, postponing replanting only kicks the problem down the road, often leading to a backlog of old palms, declining estate performance, and larger disruptions later on. Long-term sustainability depends on addressing replanting proactively—not reactively.



Given oil palms' economic lifespan of around 25 years, a common strategy is to replant 4% of the planted area each year. This kind of flat replanting plan offers several key benefits:

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- Keeps production levels and mill intake stable
- Avoids sudden spikes in nursery and field workloads
- Makes budgeting and resourcing much more predictable

The OMP Ten Year Crop Budget (OMP TYCB) module makes it easy to generate a concrete replanting plan realizing this long-term replanting strategy and to analyze the resulting long-term projection of plantation age profile and yields.
Of course, there are other ways to prioritize replanting, such as:

- When yield falls below a set percentage of its peak
- When harvesting productivity declines
- When palms exceed a height threshold

With OMP Query Writer (OMP QW), it's simple to extract a list of blocks that meet your preferred criteria. For palm height-based planning, palm growth can even be projected using current height and measured palm height increment data—giving you visibility over replanting needs years into the future.

Once you've identified which blocks to replant, the next step is choosing planting material and density. The historical data in OMP can help evaluate past performance, though it's important to recognize that newer planting materials may differ significantly from older ones. The OMP Nursery module also provides useful insights into expected seedling culling and losses, helping with accurate seed procurement and resource planning.

Once these decisions are made, replanting tasks can be planned and integrated directly into your crop budgets, and fertilizer plans can be updated accordingly. This edition's feature article takes a closer look at how to input and manage replanting data in OMP.

Replanting may seem like a cost today—but with the right planning tools, it becomes a strategic move that protects yield, efficiency, and profitability over the long term. OMP is here to help you plan it right.

Warm regards,
Max Kerstan

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Replanting data in OMP

As briefly mentioned in the message of the management article, the historical data contained in OMP can provide useful insights relating to replanting. Most obviously, the OMP data can be used to help decide which plantation areas to replant first. Reviewing past performance can also help in identifying which planting materials and planting densities to use moving forward. However, in this article we don't want to delve deeper into these aspects. Instead, given an existing replanting schedule by block we will take a look at how data on the replanting activities can be entered and viewed in OMP what other data will be affected.

For each block, OMP allows you to store the entire planting history over multiple planting cycles, including future planting cycles or in other words planned replants. Figure 1 shows sample data for such a block. When a block is to be replanted, you enter a new planting record into the table with planting date equal to the expected date when the replanting process is expected to be completed (green box in the screenshot). As part of the original planting record, you can also enter a "Next replant start date" (red box), which is the date when we expect to take the block out of production and start to poison the palms and prepare the block for replanting. During the time between the replant start date and the next planting date (that is, the replant end date), the block is considered to be "under replanting". Of course, both of these values can always be adjusted again later on if the replanting is delayed or the exact dates are known. A specific Excel import mode is available for importing data for upcoming replants, allowing you to update both of these values in the same go. Note that at this point you can also already record your planned choice of planting material and density.

Once entered, the replanting plans can be viewed on the data analysis form "Planting & replanting details", see figure 2. It is straightforward to use the local form filter on the next replant start or end columns on this form

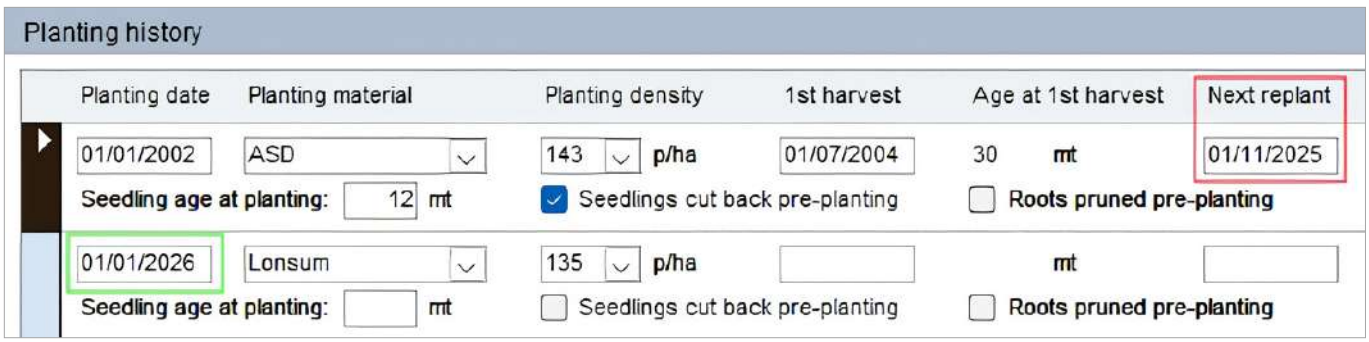

Figure 1: Recording a planned replant date.

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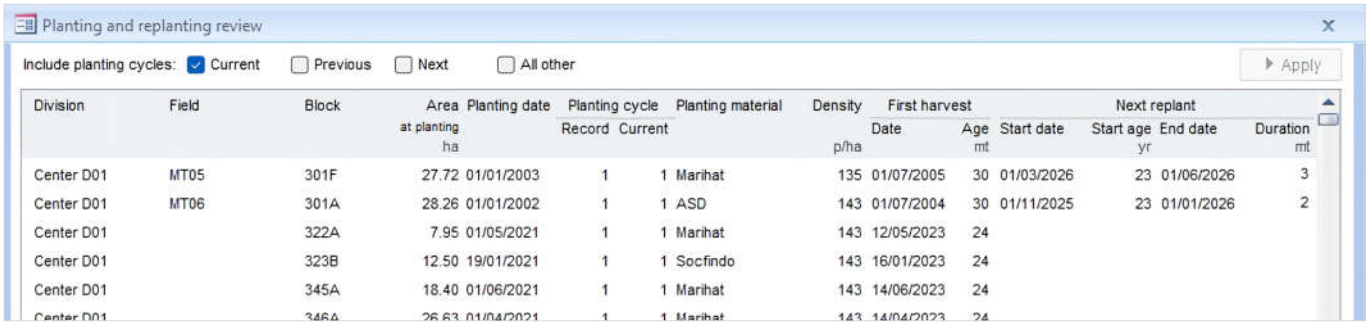

Division	Field	Block	Area at planting ha	Planting date	Planting cycle Record	Planting cycle Current	Planting material	Density p/ha	First harvest Date	First harvest Age mt	Next replant Start date	Next replant Start age yr	Next replant End date	Next replant Duration mt
Center D01	MT05	301F	27.72	01/01/2003	1	1	Marihat	135	01/07/2005	30	01/03/2026	23	01/06/2026	3
Center D01	MT06	301A	28.26	01/01/2002	1	1	ASD	143	01/07/2004	30	01/11/2025	23	01/01/2026	2
Center D01		322A	7.95	01/05/2021	1	1	Marihat	143	12/05/2023	24				
Center D01		323B	12.50	19/01/2021	1	1	Socfindo	143	16/01/2023	24				
Center D01		345A	18.40	01/06/2021	1	1	Marihat	143	14/06/2023	24				
Center D01		346A	26.63	01/04/2021	1	1	Marihat	143	14/04/2023	24				

Figure 2: DA form "Planting & replanting details".

to, for example, extract a list of blocks due for replanting in a certain year.

We are planning to add further data analysis forms or reports to more easily visualize the number of hectares to be replanted per year and division. In the meantime, it is straightforward to extract this information using the OMP Query Writer add-in. Contact Agrisoft Systems if you need assistance in writing the necessary queries.

The area statement section on the report "Monthly dashboard" (figure 3) includes information on the replanting activities, including the number of blocks and area that is currently under replanting, the areas and blocks where replanting was completed either in the selected month or in the year to date, and the areas that are immature after being replanted. The individual monthly planting status by block, including whether blocks are under replanting or imma-

Area statement

	Area ha	Area %	# Blocks	Area ha	Area %	# Blocks	Area ha	Area %	# Blocks
Estate areas	Nov 2025			Difference to Oct 2025			Nov 2024		
Mature area	**12,711.0**	**99.8**	**548**	**-28.3**	**-0.2**	**-1**	**12,734.3**	**100.0**	**548**
Immature replanted	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0
Immature new plantings	0.0	0.0	0	0.0	0.0	0	5.0	0.0	1
Total Immature area	0.0	0.0	0	0.0	0.0	0	**5.0**	**0.0**	**1**
Total planted area	**12,711.0**	**99.8**	**548**	**-28.3**	**-0.2**	**-1**	**12,739.2**	**100.0**	**549**
Under replanting	28.3	0.2	1	28.3	0.2	1	0.0	0.0	0
Not yet planted	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0
Total area	**12,739.2**	**100.0**	**549**	0.0	**0.0**	0	**12,739.2**	**100.0**	**549**
Planting & replanting	Nov 2025			YTD 2025			YTD 2024		
Replanting finished	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0
New plantings added	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0
Total	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0

Figure 3: Area statement on "Monthly dashboard" report.

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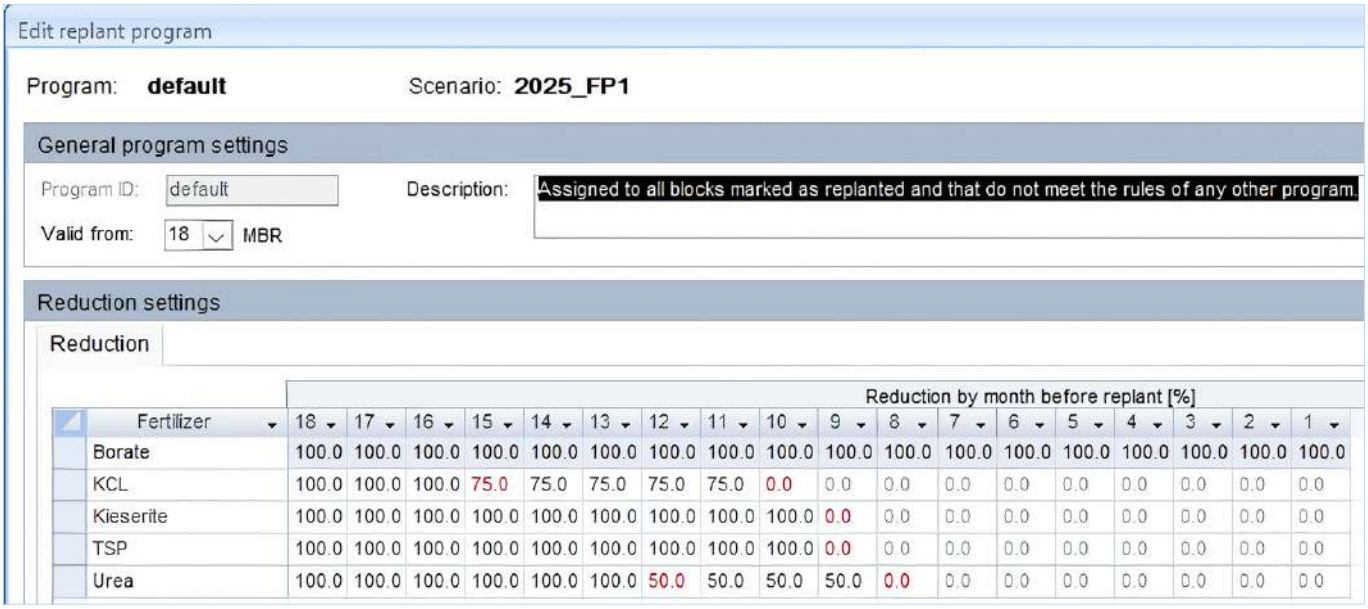

Fertilizer	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
Borate	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
KCL	100.0	100.0	100.0	75.0	75.0	75.0	75.0	75.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kieserite	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TSP	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Urea	100.0	100.0	100.0	100.0	100.0	100.0	50.0	50.0	50.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Figure 4: Replant program in OMP FP.

ture in a certain month, can be seen on the data analysis form “Monthly block growth status”.
Users of OMP Nursery can use the built-in projection feature to estimate the area they will be able to plant given current seedling stocks by age and expected culling and loss rates. This should be compared with the number of hectares scheduled for replanting in the next year or so. If there are insufficient seedlings in the nursery, clearly the replanting plans need to be revised. Conversely, looking at the planned number of hectares to replant several years ahead together with historical seedling culling and loss rates from OMP Nursery will allow them to plan the required nursery capacity and the number of seeds to order.

Planned replanting dates should be taken into account when planning the crop budget for the next year in OMP Crop Budget. For example, consider the block in figure 2 where replanting is scheduled to start in March 2026. For this block, it is obvious that the monthly yield distribution percentage in the crop budget must be set to 0 for all blocks from March onwards. The overall expected crop budget yield must also be adjusted to take into account that the block will only be harvested for 2 months before replanting starts.

Entering planned future replanting dates into OMP is also very useful for users of the OMP Fertilizer Planner (OMP FP) module for generating fertilizer recommendations. The most immediate benefit is that OMP FP will automatically set the recommendations to zero during the months when a block is scheduled to be under replanting. Furthermore, if you have defined an immature fertilization programme based on months after planting, this will automatically be

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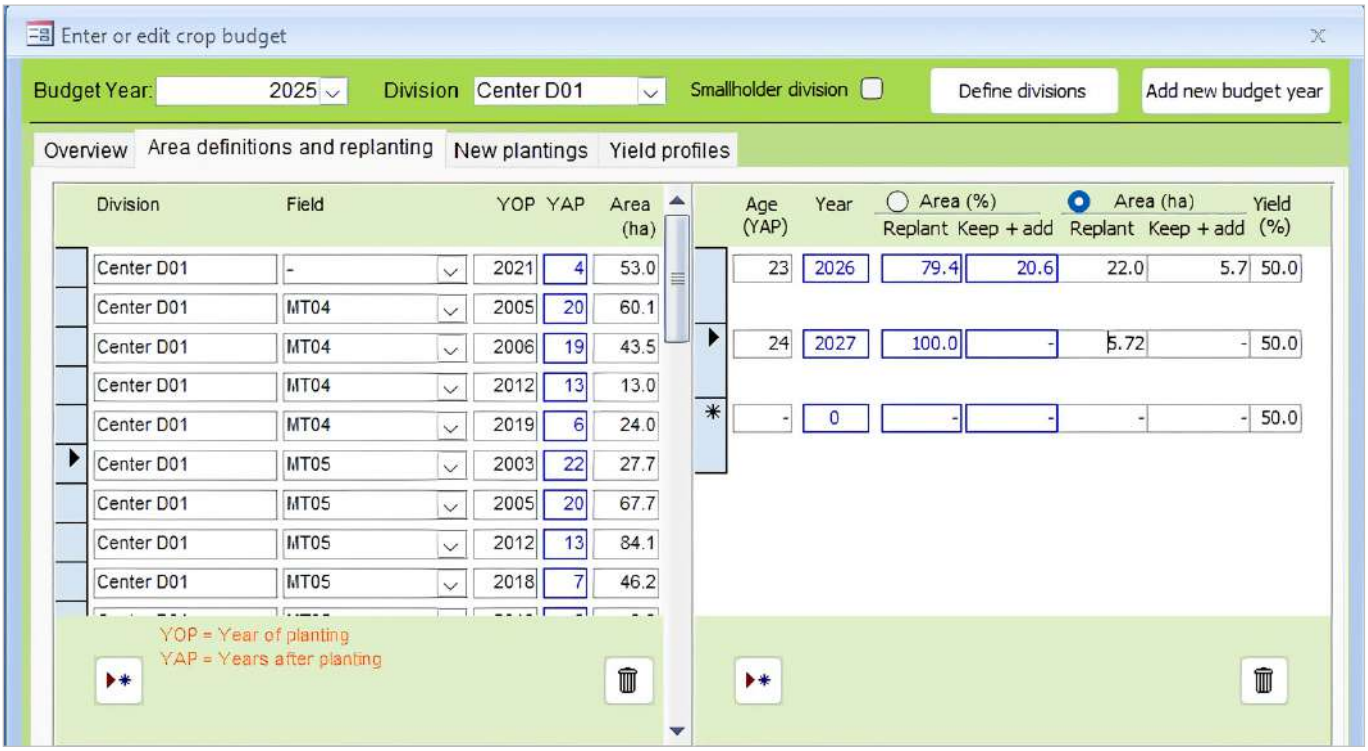

Figure 5: Area and replanting definitions in OMP TYCB.

applied in the months after replanting is scheduled to end. Planning out your replanting a couple of years in advance has the additional benefit that you can then reduce the fertilizer applications to those blocks several months or even years ahead of time, in the knowledge that there would anyway not be enough time for extra nutrients to affect yields before the palms would be replanted. This can be done in OMP FP by defining a so-called “replant programme” and specifying the reduction by the number of months before replanting for every kind of fertilizer (see figure 4).

In the new Field Work and Resource Use modules within OMP, you can define jobs for all the tasks related to replanting such as poisoning, felling, chipping, lining and so on. Next, you can input the actual work schedule for these jobs, that is the number of hectares to cover by block, job and month. At the moment you will need to create the work schedule yourself, e.g. by exporting data on the block replanting dates to help create a schedule in Excel and then importing it. However, in the future we are planning to implement functions in OMP to be able to define a kind of task plan as a function of months before/after replanting which can be used to automatically generate the work schedule using the entered replanting dates for each block. If you have entered the expected resource usage rates in the job definitions, OMP will also calculate the resource use budget for all the replanting activities.

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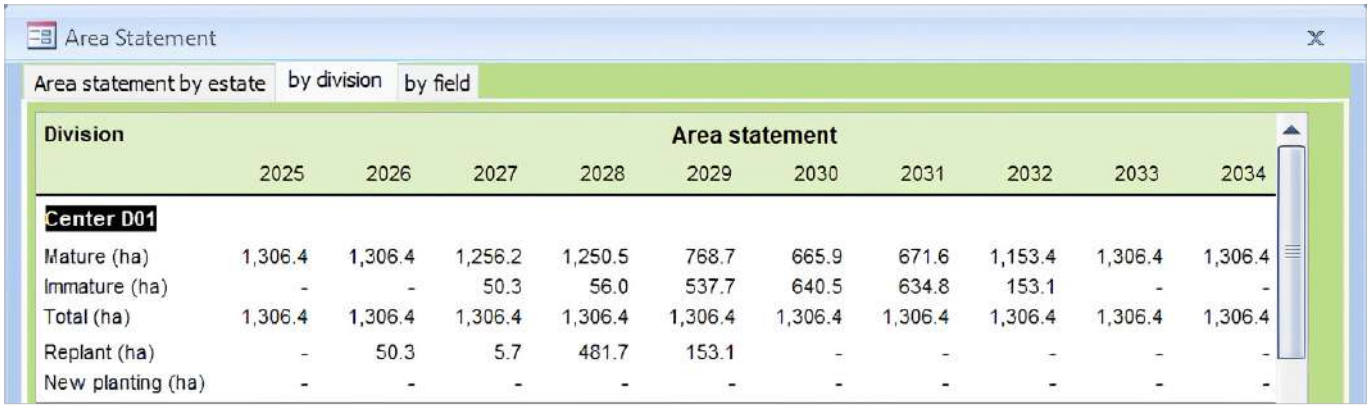

Division	Area statement									
	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Center D01										
Mature (ha)	1,306.4	1,306.4	1,256.2	1,250.5	768.7	665.9	671.6	1,153.4	1,306.4	1,306.4
Immature (ha)	-	-	50.3	56.0	537.7	640.5	634.8	153.1	-	-
Total (ha)	1,306.4	1,306.4	1,306.4	1,306.4	1,306.4	1,306.4	1,306.4	1,306.4	1,306.4	1,306.4
Replant (ha)	-	50.3	5.7	481.7	153.1	-	-	-	-	-
New planting (ha)	-	-	-	-	-	-	-	-	-	-

Figure 6: Data analysis form on evolution of area statement.

The OMP Ten Year Crop Budget (OMP TYCB) module is a useful tool for longer-term replant planning. This module works at the level of divisions or fields and years of planting, rather than individual blocks (see figure 5). You can import the configuration of existing planted areas from OMP Plantation. For each field and year of planting you can then enter the area to be replanted by year or palm age. A default replanting age can be set up for areas where no explicit replanting plans are entered. A wizard is available to generate replanting plans based on a strategy of replanting the same number of hectares each year (flat replanting plan).

Of course, it is also possible to enter expected new areas that we expect to plant in the coming years. Finally, the expected yield profiles by palm age can be entered by division and year of planting (including years of planting in the future). This makes it possible to take into account the likelihood that later plantings with more modern (possibly future) planting materials are expected to perform better than older plantings. Data analysis forms and reports are available to view the resulting crop budgets and the expected evolution of the plantation area statement over a 10 year period (see figure 6 for an example). Charts help to visualize how the palm age profile changes over the different years in the budget period.

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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.

Web service for FS app data transfer

- Alternative web-based method for transferring FS definitions and results between app and OMP database
- Standalone web service application to run on server with public IP next to OMP database
- App function to request new FS definitions from web service
- Data change log logic to only transfer tables with recent changes to reduce unnecessary data transfer
- Data transfer in batches with possibility to resume at last position in case transfer was interrupted for tables with large amounts of data
- Function to push new app results to the OMP database via the web service
- User authentication to permit posting of results only for authorized surveyors
- Data recalculation markers to facilitate re-aggregation of FS data after new results are uploaded

General improvements

- Additional grouping options for various forms and reports
- New chart for multi-year trends of harvesting productivity parameters
- Automatic synchronization of daily and monthly production data tables, regardless of which time level data was entered or edited at
- Function for “number of points surveyed” in OMP Field Survey expressions
- Option to importing FS results with questions in columns
- Report for the number of blocks and area where a certain pesticide was applied per month
- Possibility to select columns to update in back-end APIs
- New block-level field for water table depth
- Newly redesigned nutrient balance report
- Function to copy field work job definitions and round definitions to other year

Oil extraction module

- New module focusing on oil yields, oil extraction rates and milling losses
- Overall OER monitoring by comparing oil output to FFB harvest
- Recording of mill loss rates at different stages of the milling process via direct measurement of losses
- Control charts and monitoring tools for mill losses
- Bunch analysis results for individual sample bunches for OER benchmark
- Bunch grading (e.g. ripe, underripe, overripe bunches) at mill ramp or in the field
- Correlation of different results with each other and where possible with other field/block parameters e.g. palm age, planting material, seasonality