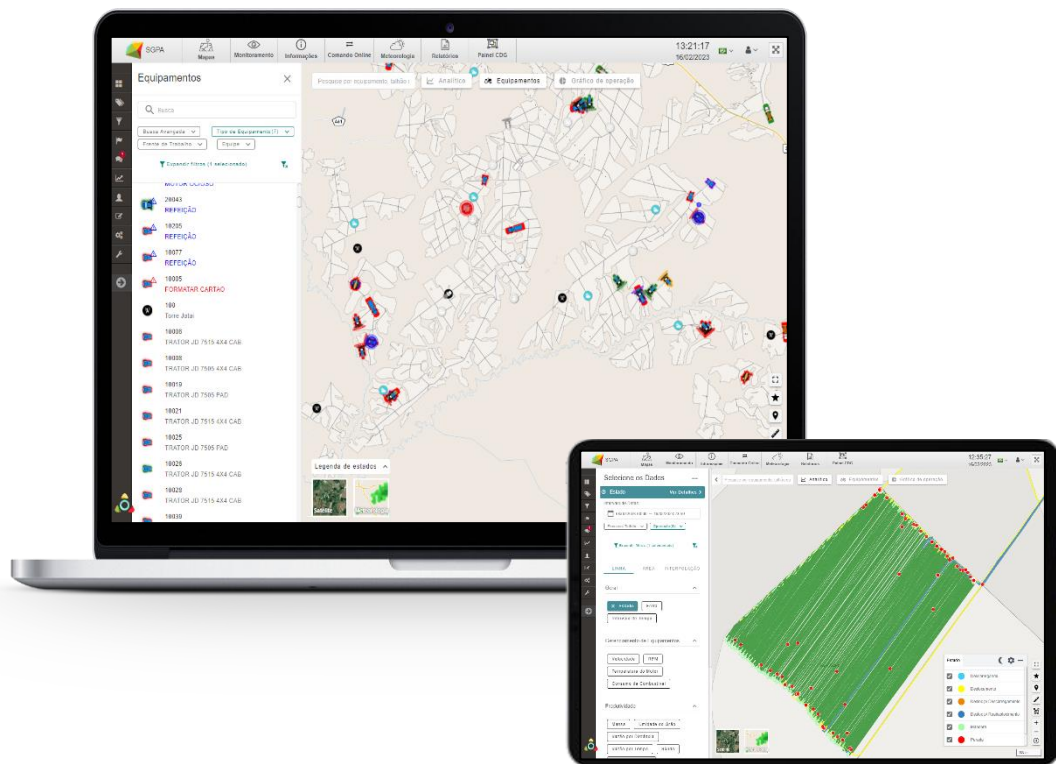


Changelog

SGPA3

Automated Process Management System



Changelog Version 2024/222
 Period: 03/26/2024 to 04/01/2024
 Revision 00
 Date: 04/09/2024

Some applications mentioned in this report may not be available in the feature pack in your SGPA 3.0



Thank you for being a SGPA 3.0 user!

We update our system in order to fix bugs, improve performance and add new features to bring a better user experience and contribute to management with greater quality and efficiency.

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1. SGPA3

1.1 New Features

1.1.1 Records and PBI Report – Benchmark

Aiming to improve data management at Sugarcane Vertical, it was implemented the new “Benchmark” Registration and the new PBI Reports “LTT Benchmark” and “Sugarcane Truck Benchmark”.

1.1.1.1 Records – Benchmark

The “Benchmark” registration was implemented with the aim of standardizing **Equipment Model, Operation, Equipment Group and Culture data**. The registration is divided into tabs, where four types of registration will be carried out, they are: “Equipment Model Links”, “Operation Links”, “Equipment Group Links” and “Unit Classification by Vertical”.

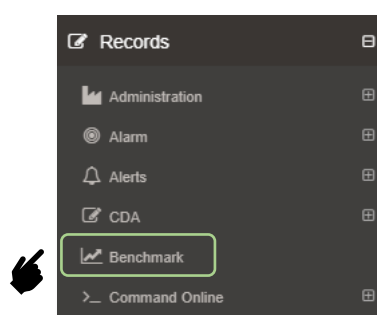


Image 01 – Benchmark registration access button

Equipment Model Links

Equipment Models (21)

541 - JOHN DEERE CH570T

806 - SOLINFTEC HUB

846 - GAME 67MTX

887 - GAME 75MTX

888 - JOHN DEERE 3520T

906 - TOFT 8800

926 - ELEVATOR

946 - POWER UNIT

966 - RoGator 1100

967 - Case IH 4430

968 - John Deere 7210R

969 - John Deere 8245R

970 - John Deere 8370R

986 - MACHINE

Operational Links

Equipment Groups Links

Unit Classification by Vertical

Import/Export CSV

Standard Equipment Models

| | | |
|---------------------------------|---------------------------------|--------------------------------|
| 12 - CASE 2388 | 13 - CASE 2399 | 14 - CASE MX 240 |
| 16 - CASE 2555 | 18 - CASE 260 | 22 - CASE 290 |
| 24 - CASE 320 | 253 - JOHN DEERE 4240 | 258 - JOHN DEERE 4940 |
| 279 - JOHN DEERE 6115 | 290 - JOHN DEERE 620G | 466 - MERCEDES BENZ 1514 |
| 467 - MERCEDES BENZ 1618 | 468 - MERCEDES BENZ 1620 | 469 - MERCEDES BENZ 1718 |
| 475 - MERCEDES BENZ 1938 | 478 - MERCEDES BENZ 2423 | 479 - MERCEDES BENZ 2426 |
| 481 - MERCEDES BENZ AXOR 2466 | 484 - MERCEDES BENZ 2638 | 486 - MERCEDES BENZ 2726 |
| 487 - MERCEDES BENZ 2728 | 488 - MERCEDES BENZ 2729 | 489 - MERCEDES BENZ 2730 |
| 490 - MERCEDES BENZ 3131 | 491 - MERCEDES BENZ 3344 | 492 - MERCEDES BENZ 709 |
| 493 - MERCEDES BENZ 710 | 495 - MERCEDES BENZ 815 | 496 - MERCEDES BENZ ACCELO 815 |
| 498 - MERCEDES BENZ ACTROS 2651 | 499 - MERCEDES BENZ ACTROS 3340 | 500 - MERCEDES BENZ APACHE |

Image 02 – “Equipment Model Links” tab in the Benchmark Registration

Equipment Model Links

Operational Links

Equipment Groups Links

Unit Classification by Vertical

Import/Export CSV

Default Activity Group

Operations (16)

694 - ALLOCATED HAULING TRACTOR

199 - CUT - BURNED CANE

198 - CUT - GREEN CANE

602 - UNLOAD

699 - LOADING CANE

197 - MANEUVER

697 - TRACTOR MOVING EMPTY

698 - TRACTOR MOVING LOADED

696 - WAITING FOR HARVESTER

695 - WAITING FOR HARVESTER TO END LOAD

400 - LIQUID PRODUCT APPLICATION

Default Activity Group

| | | |
|--|---|--|
| 108-22 - PLANTIO LEGUMES MACROPROCESS: PLANTIO | 100-34 - COLHEITA FENO MACROPROCESS: COLHEITA FENO | 90-32 - TESTE MACROPROCESS: TESTE |
| 34-13 - CORTE CANA MACROPROCESS: COLHEITA CANA | 17-8 - CARREG TRANSP DESCARREG MACROPROCESS: APOIO | 56-17 - INCORPORAÇÃO MACROPROCESS: CORRETIVO |
| 113-4 - TRILLO MACROPROCESS: PREPARO DE SOLO | 102-12 - DESCARTE MACROPROCESS: SERVIÇOS GERAIS | 18-16 - CATAÇÃO MACROPROCESS: TRATOS CULTURAIS |
| 88-4 - SUBSOLAGEM MACROPROCESS: PREPARO DE SOLO | 43-14 - ENLEIRA DESENLEIRA PALHA MACROPROCESS: PALHA | 48-5 - FUNGICIDA MACROPROCESS: PULVERIZAÇÃO |
| 32-17 - CORREÇÃO MACROPROCESS: CORRETIVO | 72-22 - PLANTIO GRÃOS S/ ADUBO MACROPROCESS: PLANTIO | 55-5 - HERBICIDA MACROPROCESS: PULVERIZAÇÃO |
| 42-14 - ENFARDAMENTO PALHA MACROPROCESS: PALHA | 40-4 - DESTOCAGEM MACROPROCESS: PREPARO DE SOLO | 57-5 - INSETICIDA MACROPROCESS: PULVERIZAÇÃO |
| 66-4 - NIVELADOR MACROPROCESS: PREPARO DE SOLO | 115-10 - COLHEITA MACROPROCESS: COLHEITA | 17-1 - CARREG TRANSP DESCARREG MACROPROCESS: ADUBAÇÃO |
| 105-34 - ENFARDADORA FENO MACROPROCESS: COLHEITA FENO | 63-25 - NÃO DEFINIDO MACROPROCESS: NÃO DEFINIDO | 89-4 - TERRAPLANAGEM MACROPROCESS: PREPARO DE SOLO |

Image 03 – “Operational Links” tab in the Benchmark Registration

The step-by-step video about how to register on the “Benchmark” screen is available on the home page of the “LTT Benchmark” PBI Report, under the “Video-Registrations” button.



Go to Main Menu > Records > Benchmark and Main Menu > Reports > PBI > Benchmark Menu > LTT > Cover > Video-Registrations



Available for Sugarcane Vertical Environments. Access available only to the “Project Manager” and “IT Support” User Groups.

1.1.1.2 PBI Report – LTT Benchmark

The PBI Report “LTT Benchmark (Light Tire Tractor)” aims to analyze the behavior of this Unit Equipment Type at the client in comparison with the market.

The “LTT Benchmark” report will be updated every 16th of each month, presenting a partial sample of data up to that date. On the fifth business day of each month, data from the previous month is processed. After completing this processing, the data is locked and will not be reprocessed to avoid changes in the ranking.

Due to its complexity, it is necessary that all registrations and notes be made in the most reliable way possible. At this level of analysis, the Process, Equipment, Fronts and Regions records incorporate the analysis, offering new views. The veracity of these records will guarantee the quality of the analysis before the market. Therefore, it is extremely important that the data entered in the “Benchmark” registration is made correctly.

An explanatory video is available on the cover of the “LTT Benchmark” report, in the “Video – Use” option, on how to use the report and its analyses.

The “LTT Benchmark” Report has 7 filters, they are: **REGION**, **MESORREGION**, **DEFAULT EQUIPMENT GROUP**, **DEFAULT MACROPROCESS**, **DEFAULT ACTIVITY GROUP**, **DEFAULT EQUIPMENT MODEL** and **BRANCH**.



Image 04 – LTT Benchmark Report Cover



Image 05 – Main screen of the LTT Benchmark Report and “i” button that takes you to the Premises and Metrics screen of the report



Benchmark de LTT Report

ASSUMPTIONS

[We only consider equipment that works more than 1 hour per day.]

To create the Global Ranking, the following metric was established:
Global Ranking = \sum Rankings


Adding the ranking positions present in each of the indicators, we establish that, the lower the score, the better the global position of the evaluated unit.

Note on Ranking Position Tooltips: Tooltips provide a summary view of the data linked to the units in question. When examining the various equipment models available, the information presented in the Tooltips includes the model that performed best on the indicator in focus. With regard to operation groups and states, the Tooltips display a selection of the five best performances recorded for the specific indicator under analysis.

METRICS

- ✓ Operational Efficiency (%): Calculates how much of the total available time was converted into effective time.
- ✓ Productive Hours / (Total Hours - Group Time of Maintenance, Administrative and Climate Stops)
- ✓ Motor Efficiency (%): Calculates how much of the total engine running time was converted into effective time.
- ✓ Productive Hours / Total Engine Hours On
- ✓ Overall Efficiency (%): Calculates how much of the total available time was converted into productive time.
- ✓ Productive Hours / Total Hours
- ✓ Operational Income (ha/h): Calculates the amount of operational area carried out per hour of effective time.
- ✓ Operational Area (ha) / Effective Hours
- ✓ Real Yield (ha/h): Calculates the amount of operational area created for each hour of engine running.
- ✓ Operating Area (ha) / Engine On Hours
- ✓ General Consumption (L/ha): Calculates on average how much fuel was used per hectare.
- ✓ Total Consumption (l) / Operational Area with Consumption (l) > 0
- ✓ Average Actual Consumption (l/h): Calculates on average how much fuel was used to carry out activities per hour of engine running.
- ✓ Total Effective Consumption with operational area > 0 / Total Effective Hours of Engine On
- ✓ Engine On During Stops (%): Calculates how much of the total time during stops the engine remained on.
- ✓ Total Engine On Hours at Stops / Total Engine On Hours

Image 06 – Benchmark Screen with the Assumptions and Metrics of the Benchmark LTT Report and icon that directs you to view the data entered in the Benchmark Registry







Benchmark de LTT Report




Note: If empty fields appear, you must register correctly in the benchmark registration panel.

| Processo | Grupo Atividade Padrão | Processo Macro | Equipamento Modelo | Modelo Equipamento Padrão | Frete | Tipo Frete | | |
|-----------------------------|------------------------|-----------------|--------------------------------|---------------------------|--------|-------------|---------|---------------|
| Triplíce Op.Pes-Com | | | 1030 TRATOR AUTOPROPEL. JD4730 | | | | | |
| Adução | | | 1371 T.PULVERIZ. NEW HOLLANDV | | | | | |
| Sulcacão Meios | | | 1387 JOHN DEERE 6100J | JOHN DEERE 6100 | | | | |
| SULCACAO | | | 1393 JOHN DEERE 6150J | JOHN DEERE 6150 | | | | |
| Sulc com torta-sulco plan | | | 416 TRATOR UNIPORT | | | | | |
| Subsolagem com corretivos | SUBSOLAGEM | PREPARO DE SOLO | 672 T.PULVERIZADOR JD4630 | | | | | |
| Subsolagem c/ Pl Cob. Veg | SUBSOLAGEM | PREPARO DE SOLO | 4X4 | | | | | |
| SUBSOLAGEM | SUBSOLAGEM | PREPARO DE SOLO | CARREGADEIRA | | | | | |
| Subs. c/ Inset - Bar/Quim | SUBSOLAGEM | PREPARO DE SOLO | CASE 260 | CASE 260 | | | | |
| Segunda Grade Intermediária | GRADAGEM INTERMEDIÁRIA | GRADAGEM | CASE 270 | CASE 270 | | | | |
| | | | CASE 340 | | | | | |
| | | | CASE 8800 | CASE A 8800 | | | | |
| | | | CASE 8800 Colhedoras | CASE A 8800 | | | | |
| Unidade | Meso Região 1 | | Micro Região 1 | Município | Região | Estado País | Unidade | Classificacao |

Image 07 – Screen with the information entered in the Benchmark Register (Process, Equipment, Fronts, etc.)

Filters:

REGION ▼  MESOREGION ▼  DEFAULT EQUIPMENT GROUP ▼  DEFAULT MACRO PROCESS ▼ 

DEFAULT ACTIVITY GROUP ▼  DEFAULT EQUIPMENT MODEL ▼  BRANCH ▼ 

PICK A DATE RANGE

PLEASE SELECT A VALUE TO UNLOCK FILTERING

Image 08 – PBI LTT Benchmark Report Filters



Go to Main Menu > Reports > PBI > Benchmark Menu > LTT



Available for Vertical Sugarcane Environments.

1.1.1.3 PBI Report – Sugarcane Truck Benchmark

The PBI “Sugarcane Truck Benchmark” Report aims to complement the package of analysis reports on Cutting, Loading and Sugarcane transporting. Its operation is like the “Transshipment Benchmark” and “Harvester Benchmark”, that is, it analyzes the behavior of this Unit Equipment Type at the client in comparison with the market.

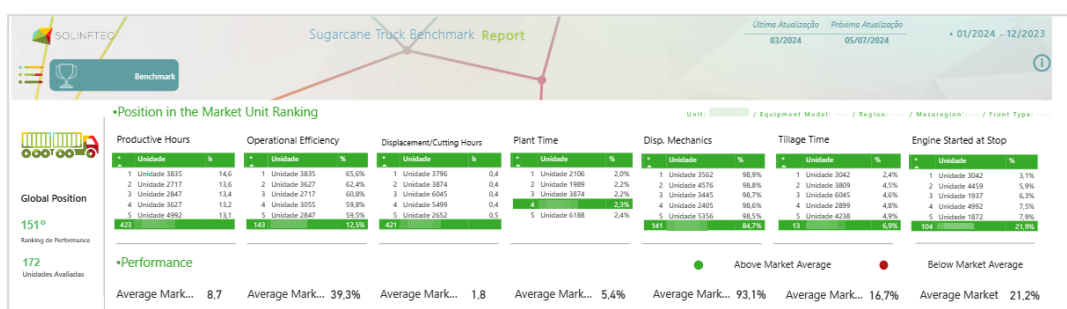


Image 09 – New PBI Sugarcane Truck Benchmark Report

The “Sugarcane Truck Benchmark” Report has 5 filters: **REGION**, **MESORREGION**, **DEFAULT EQUIPMENT GROUP**, **DEFAULT EQUIPMENT MODEL** and **BRANCH**.

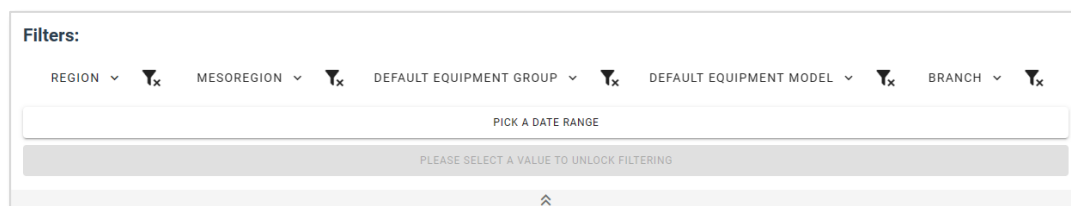


Image 10 – PBI Sugarcane Truck Benchmark Report Filters

⚠ A necessary premise for Benchmark Reports to work is choosing **one unit** at a time and a **period**, otherwise the report will display no data.

... Go to Main Menu > Reports > PBI > Benchmark Menu > Sugarcane

i Available for Vertical Sugarcane Environments.

1.2 Improvements

1.2.1 PBI Report – Harvester Benchmark and Transshipment Benchmark

Improvement made to the PBI Reports “Harvester Benchmark” and “Transshipment Benchmark”.

From this version on, in the “Harvester Benchmark” report it will be possible to analyze the ten best Units on the market, by clicking on the “Top 10” icon available on the upper right side of the “Benchmark” tab. In addition, this report will have three new views (tabs), they are:

- “Market Analysis”, in which it will be possible to understand all indicators globally, observing all market behavior in the selected period.
- “Customer Analysis”, which aims to visualize the behavior of the unit(s) in the customer’s environment.
- “Operations Behavior”, to be possible to analyze operations carried out in the Units in the client’s environment in comparison with the best Unit on the market. Due to the dependence on textual analysis to separate operations, this tab is in a Beta version (test).

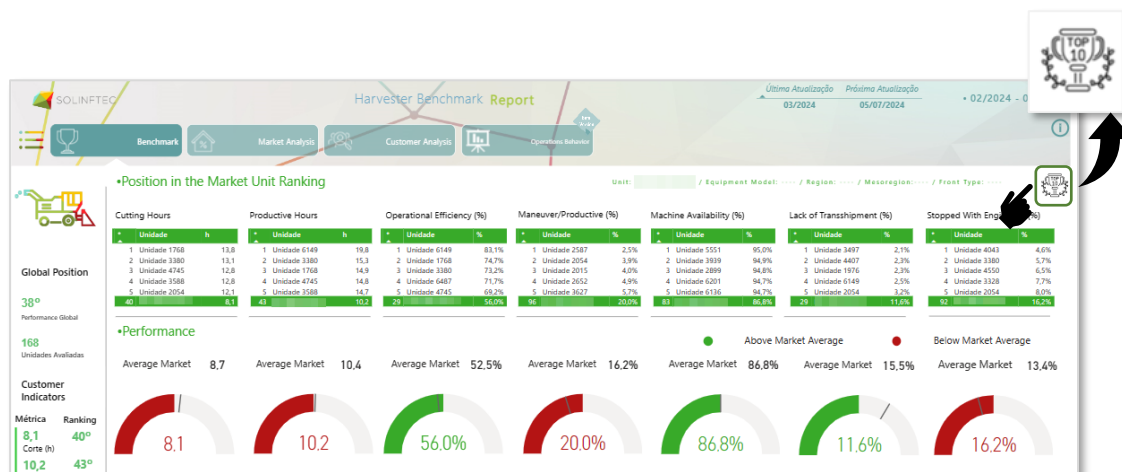


Image 11 – “Top 10” icon on the top right side of the Benchmark tab that directs the user to view the ten best Units on the market.

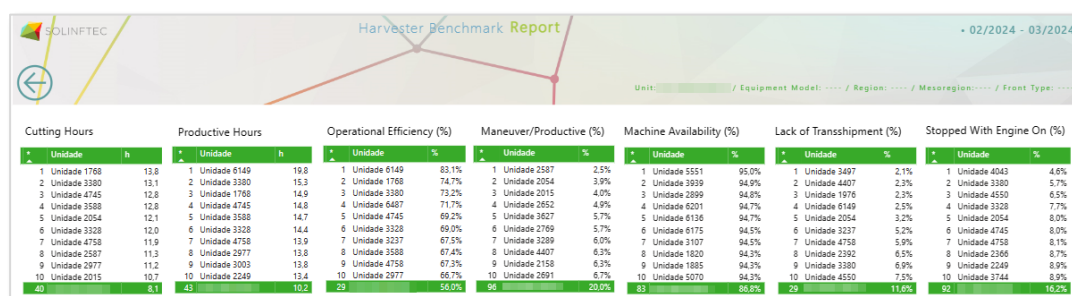


Image 12 – View of the 10 best Units on the market.

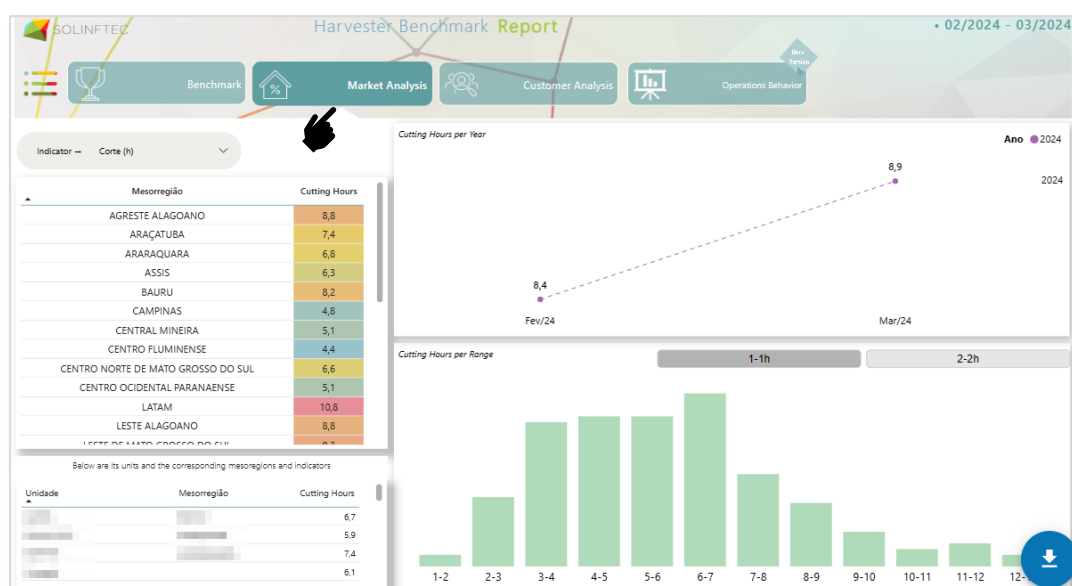


Image 13 – New Market Analysis tab in the Harvester Benchmark Report

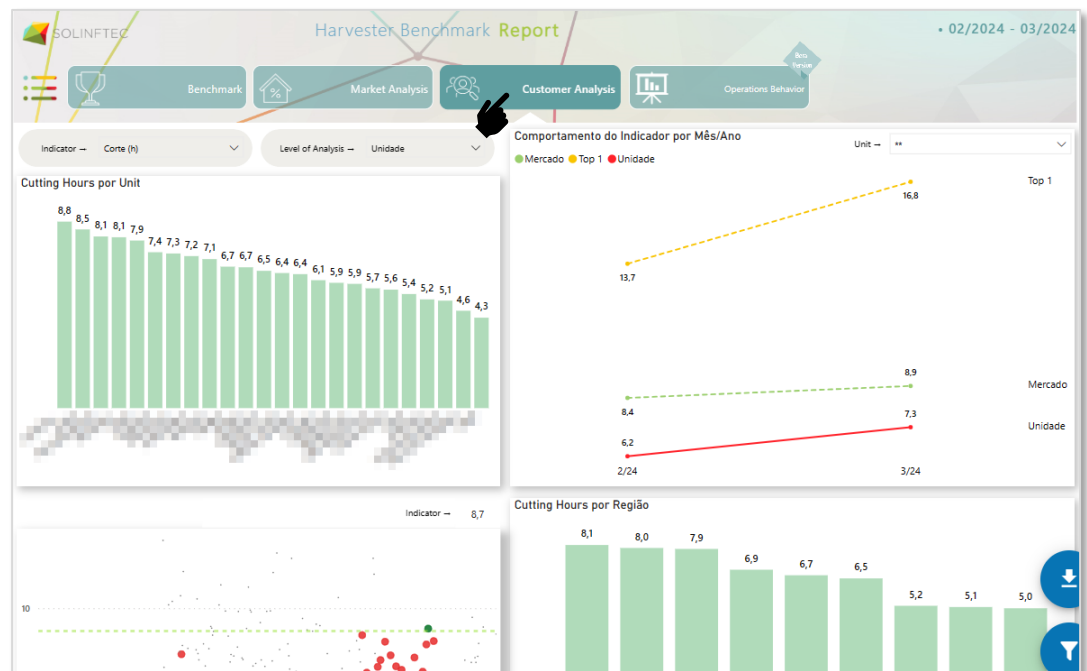


Image 14 – New **Customer Analysis** tab in the Harvester Benchmark Report

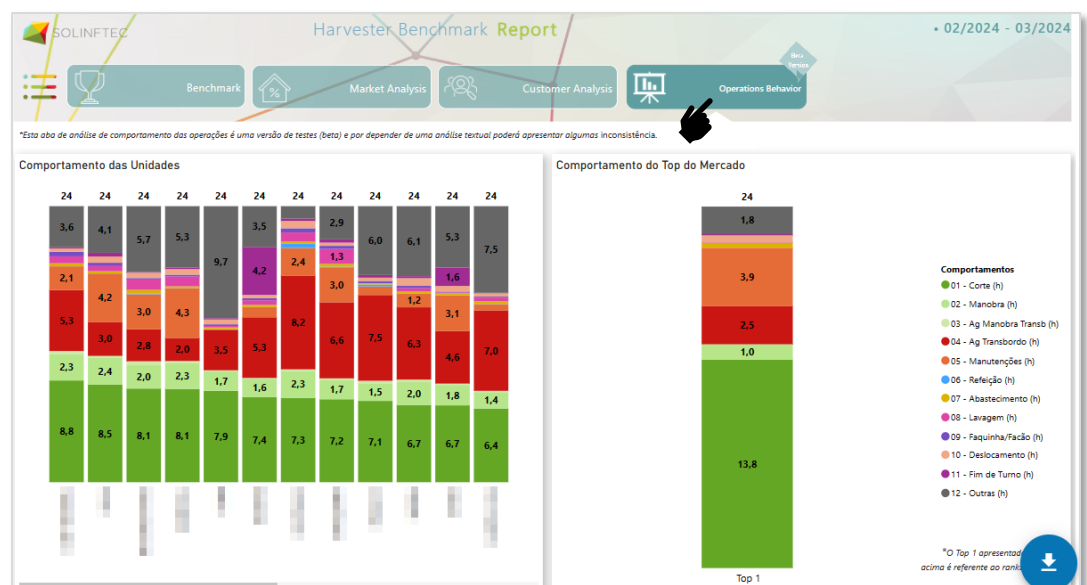







Image 15 – New **Operations Behavior** tab (Beta Version) in the Harvester Benchmark Report

Furthermore, new Filters were added to the “Harvest Benchmark” and “Transshipment Benchmark” Reports, they are: **REGION, MESORREGION, DEFAULT EQUIPMENT GROUP, DEFAULT EQUIPMENT MODEL and BRANCH.**

Filters:

REGION ▼  MESOREGION ▼  DEFAULT EQUIPMENT GROUP ▼  DEFAULT EQUIPMENT MODEL ▼  BRANCH ▼ 

PICK A DATE RANGE

PLEASE SELECT A VALUE TO UNLOCK FILTERING

Image 16 – New filters in the PBI Harvester and Transshipment Benchmark Reports



A necessary premise for Benchmark Reports to work is choosing one **unit** at a time and a **period**, otherwise the report will be displayed without data.



Go to Main Menu > Reports > PBI > Benchmark Menu > Harvester and Transshipment



Available for Vertical Sugarcane Environments.

1.2.2 PBI Report – Cutting, Loading and Transporting Cane Online

Improvement made to the PBI Report “Cutting, Loading and Transporting Cane Online”, to display the values in the bars of the **Time** graphs (%).



Image 17 – Displaying values in the Time (%) chart bars in the CCT Online report



Go to Main Menu > Reports > PBI > Online Reports > Cutting, Loading and Transporting Cane Online



Available for Vertical Cane Environments. Applied on 04/03/2024.

1.2.3 PBI Report – Flow and Calibration

Improvement made to the PBI “Flow and Calibration” Report, from the Perennials vertical, to add new ranges of values in the “Working Hours by Operation and Flow Range (l/p)” graph.

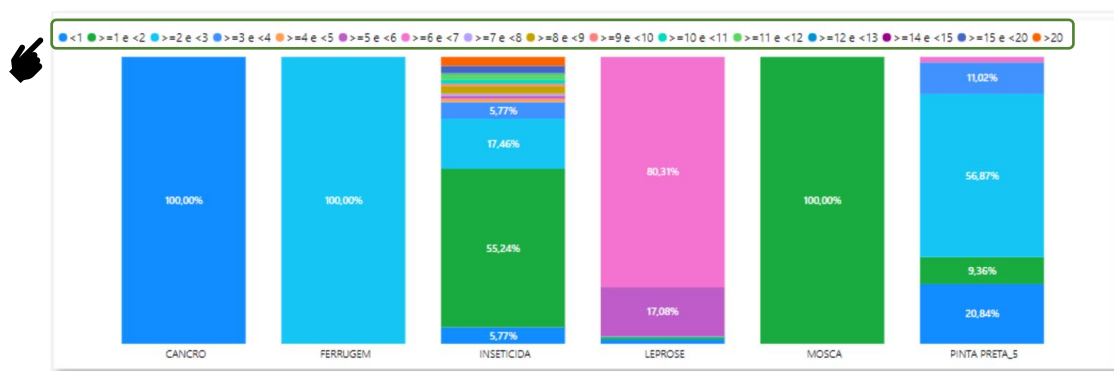


Image 18 – “Working Hours by Operation and Flow Range (l/p)” graph showing a greater number of ranges.



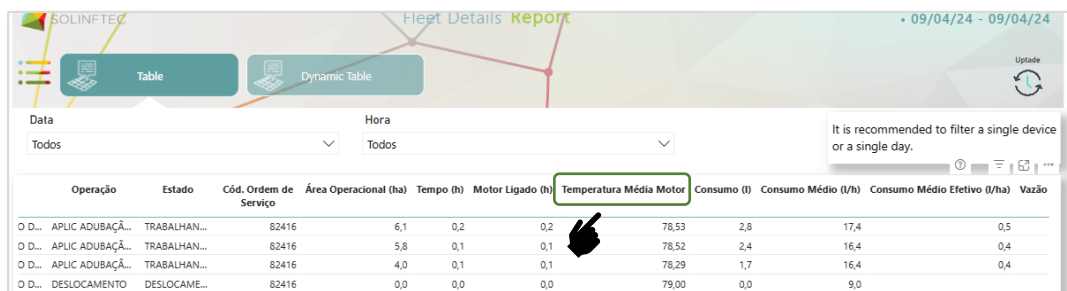
Go to Main Menu > Reports > PBI > Flow and Calibration > Flow Tab > Switch to Range (l/p) > Working Hours by Operation and Flow Range (l/p)



Available for Perennials Vertical Environments that have the extra “Flow and Calibration” report.

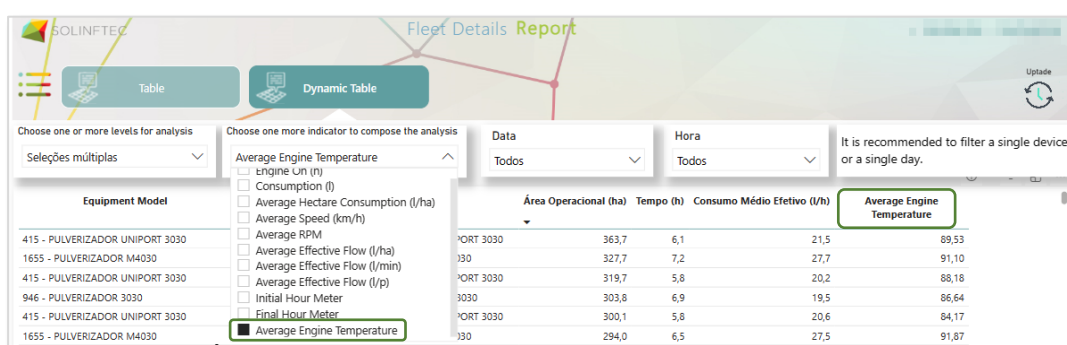
1.2.4 PBI Report – Fleet Details

Improvement made to the PBI Report “Fleet Details”, from Grain Vertical, to add the “Average Engine Temperature” indicator.



| Operação | Estado | Cód. Ordem de Serviço | Área Operacional (ha) | Tempo (h) | Motor Ligado (h) | Temperatura Média Motor | Consumo (l) | Consumo Médio (l/h) | Consumo Médio Efetivo (l/ha) | Vazão |
|-----------------------|--------------|-----------------------|-----------------------|-----------|------------------|-------------------------|-------------|---------------------|------------------------------|-------|
| O D... APLIC ADUBAÇÃO | TRABALHAN... | 82416 | 6,1 | 0,2 | 0,2 | 78,53 | 2,8 | 17,4 | 0,5 | |
| O D... APLIC ADUBAÇÃO | TRABALHAN... | 82416 | 5,8 | 0,1 | 0,1 | 78,52 | 2,4 | 16,4 | 0,4 | |
| O D... APLIC ADUBAÇÃO | TRABALHAN... | 82416 | 4,0 | 0,1 | 0,1 | 78,29 | 1,7 | 16,4 | 0,4 | |
| O D... DESLOCAMENTO | DESLOCAME... | 82416 | 0,0 | 0,0 | 0,0 | 79,00 | 0,0 | 9,0 | | |

Image 19 – Average Engine Temperature Indicator in the Table tab



| Equipment Model | Área Operacional (ha) | Tempo (h) | Consumo Médio Efetivo (l/h) | Average Engine Temperature |
|---------------------------------|-----------------------|-----------|-----------------------------|----------------------------|
| 415 - PULVERIZADOR UNIPORT 3030 | 363,7 | 6,1 | 21,5 | 89,53 |
| 1655 - PULVERIZADOR M4030 | 327,7 | 7,2 | 27,7 | 91,10 |
| 415 - PULVERIZADOR UNIPORT 3030 | 319,7 | 5,8 | 20,2 | 88,18 |
| 946 - PULVERIZADOR 3030 | 303,8 | 6,9 | 19,5 | 86,64 |
| 415 - PULVERIZADOR UNIPORT 3030 | 300,1 | 5,8 | 20,6 | 84,17 |
| 1655 - PULVERIZADOR M4030 | 294,0 | 6,5 | 27,5 | 91,87 |

Image 20 – Average Engine Temperature Indicator in the Pivot Table tab

Go to Main Menu > Reports > PBI > Fleet Details > Table Tab > Average Engine Temperature and Pivot Table Tab > Choose another indicator to compose the analysis > Average Engine Temperature

 Available for Vertical Grain Environments.

1.3 Bugs

1.3.1 PBI Report – Worked Area

Adjustment made to the Fields filter of the “Worked Area” PBI Report to load data correctly.

Go to Main Menu > Reports > PBI > Worked Area

In case of doubt or further clarification, please contact us via email suporte@solinftec.com.br or call +55 18 3622 2270.