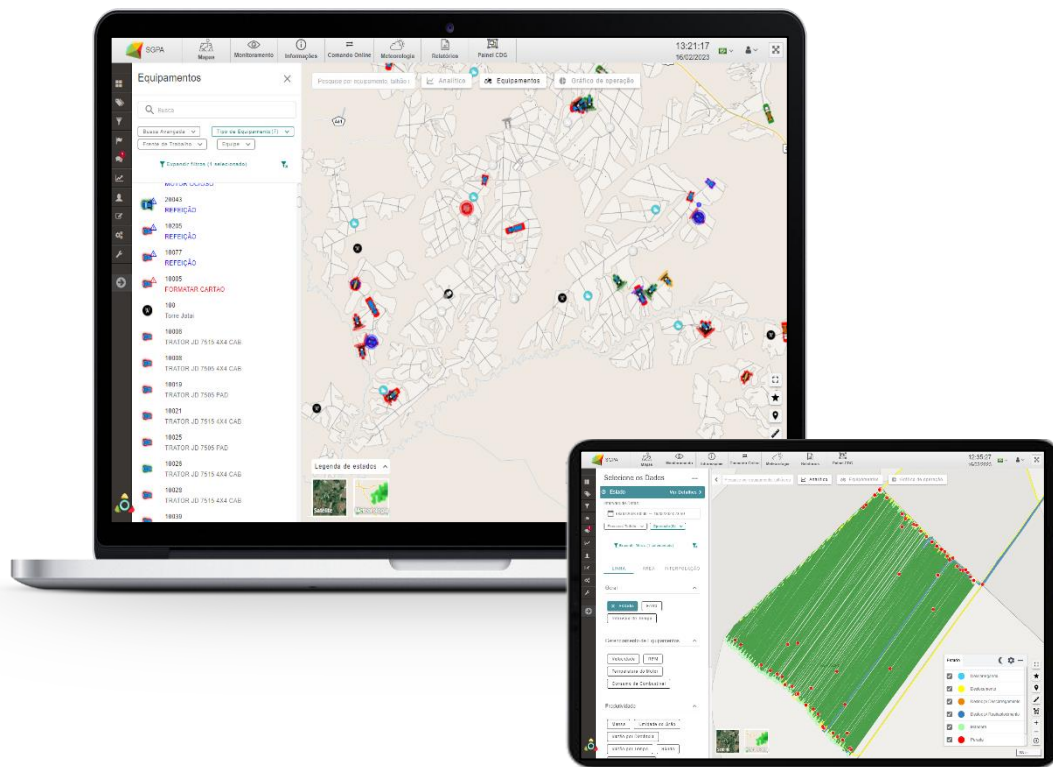

Changelog

SGPA3

Automated Process Management System



Changelog Version 2024/246
Period: 10/01/2024 to 10/07/2024
Revision 00
Date: 10/15/2024

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 a management with greater quality and efficiency.

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1. SGPA3

1.1 Improvements

1.1.1 Maps and Monitoring – Meteorology

The “Operation Analysis” map was implemented in the Meteorology module. With this new functionality, the user will be able to access the ideal weather conditions for carrying out agricultural operations. The specifications of the new map are described below:

- When selecting a specific operation, the system will display the weather conditions for each field on the map, based on the ideal ranges previously entered in the “Operation Parameters” register for each operation. The map displays which fields are suitable for executing the selected operation based on weather data received in real time from the stations.

- The system provides a timeline with the weather forecast, with updates for the next 24 hours, to identify windows of opportunity throughout the day. The map legend highlights the four main climate variables that influence the operation: **Humidity, Temperature, Wind Speed and Accumulated Rainfall or Probability of Rain.**

- The coloring of the values on the map refers to the conditions of the current time (Now) and indicates the degree of suitability to the climate ranges previously registered by the user, that is, if a specific time is selected on the timeline, they will not be reflected on the map, as the map only displays the values of the current time.

- When the user clicks on a specific field, the legend values will update to reflect the weather conditions and forecasts for that field. Otherwise, the values displayed in the legend represent the general weather conditions for the farm.

⚠ The “precipitation” variable shows the accumulated rainfall volume in millimeters for the current hour (Now). For other hours, the system displays the probability of precipitation as a percentage.

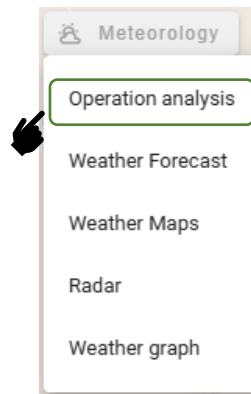


Image 01 – Shortcut to the new “Operation Analysis” weather map

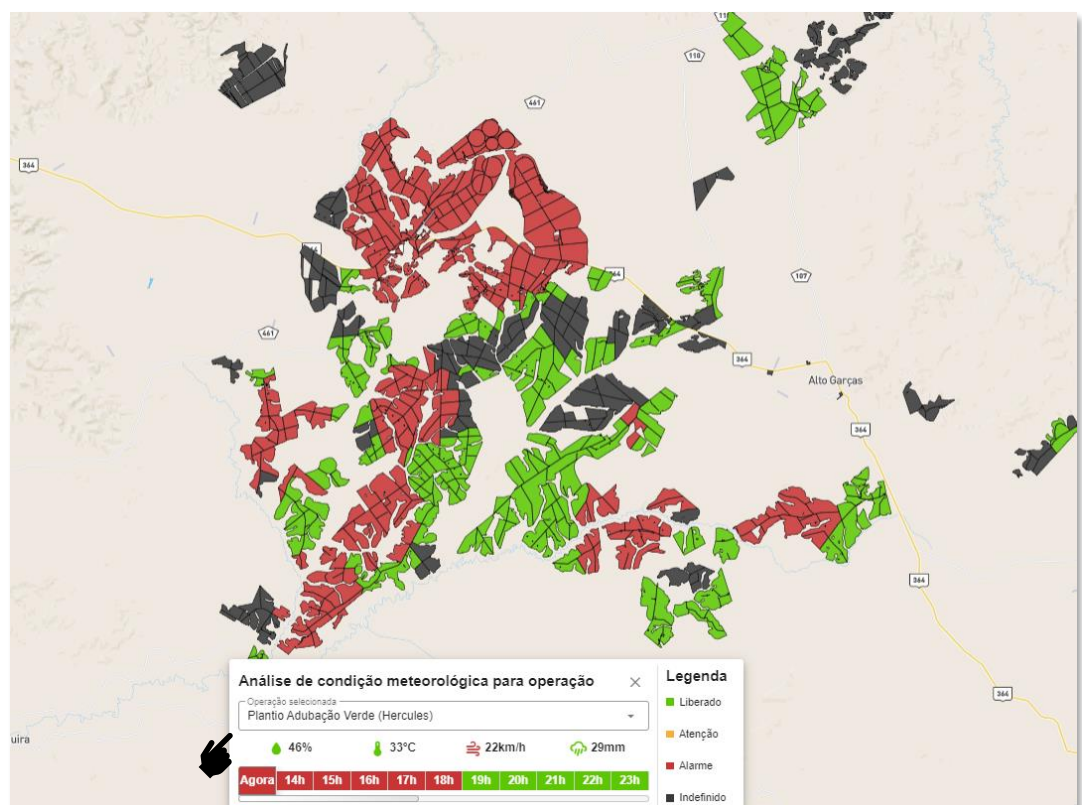



Image 02 – “Operation Analysis” Weather Map Overview



Image 03 – Weather map menu details “Operation Analysis”






Código	Operação	Temperatura	Umidade	Ponto de orvalho	Umidade da folha	Umidade do solo	Acúmulo de Chuva	Probabilidade de Chuva	Velocidade do vento	Opções
177	Plantio Adubação Verde - Terrestre	Não	Não	Não	Não	Não	Não	Não	Sim	 
239	Colheita Adubação Verde	Não	Não	Não	Não	Não	Não	Não	Não	 
347	Plantio Adubação Verde (Hercules)	Sim	Sim	Não	Não	Não	Sim	Não	Sim	 
390	Plantio Adubação Verde - Autoprop	Não	Não	Não	Não	Não	Não	Não	Não	 

Image 04 – Configured operation of the “Operation Parameters” register



Parâmetros de Operação

Operação: 347 - Plantio Adubação Verde (Hercules)

Condições de aviso e alarme | Condições em mapa | Condições climáticas

Temperatura (C°)

Alarma	Aviso	Bom	Aviso	Alarma
< 13	13 ~ 14	14 ~ 34	34 ~ 35	> 35
Condição min. aviso inferior: 13	Condição mínima ideal: 14	Condição máxima ideal: 34	Condição max. aviso superior: 35	

Umidade (mm)

Alarma	Aviso	Bom	Aviso	Alarma
< 29	29 ~ 31	31 ~ 90	90 ~ 91	> 91
Condição min. aviso inferior: 29	Condição mínima ideal: 31	Condição máxima ideal: 90	Condição max. aviso superior: 91	

Ponto de orvalho (C°)

Alarma	Aviso	Bom	Aviso	Alarma
<	~	~	~	>
Condição min. aviso inferior:	Condição mínima ideal:	Condição máxima ideal:	Condição max. aviso superior:	

Image 05 – Operation configuration details in the “Operation Parameters” register



Go to Main Menu > Records > Operation > Operation Parameters and Top Menu
> Maps / Monitoring > Top Menu on Map > Meteorology > Operation Analysis



Available for Environments that have the “Weather” solution active.

1.1.2 Records – Station Type / Rain Gauge

Improvement made to the “Station Type / Rain Gauge” register. As of this version, it is possible to edit the linked fields, that is, remove fields linked to the Meteorological Equipment or link Fields to the Meteorological Equipment.

In addition, on the Meteorological Equipment configuration screen, the description of the update field was changed to “Send weather data from GPRS stations to TPL?”.

Tipo de Estação/Pluviômetro

+ Adicionar

Pesquisar

Filtrar

<input type="checkbox"/> Código Equipamento	Tipo	Fator de folha molhada	Fator de umidade do solo	Fator de Chuva	Sensor de Chuva	Latitude	Longitude	Parâmetros	Talhões	Opções
<input type="checkbox"/> 5 - ESTACAO	Estacao Meteorologica	1	1	0.5	Pronamic SmL	-13.0523	-52.3354	Full pack	Talhões	
<input type="checkbox"/> 6 - PLUO	Pluviometro	1	1	0.5	Pronamic SmL	-13.0572	-52.3073	Full pack	Talhões	
<input type="checkbox"/> 42 - EST METEOROLOGICA	Estacao Meteorologica	5	10	0.254	DAVIS Model 6464M in MM	-12.7186091	-52.3713835	17 Sensors	Talhões	
<input type="checkbox"/> 102 - EST METEOROLOGICA	Estacao Meteorologica	5	8	0.286189069	Fine Offset	-12.70972222	-52.45388889	Full pack	Talhões	
<input type="checkbox"/> 146 - EST METEOROLOGICA	Estacao Meteorologica	5	8	0.5	Pronamic 10mLL	-12.85055556	-52.43666667	Full pack	Talhões	
<input type="checkbox"/> 193 - EST METEOROLOGICA	Estacao Meteorologica	5	8	0.286189069	Fine Offset	-12.951231321	-52.414524078	Full pack	Talhões	
<input type="checkbox"/> 213 - EST METEOROLOGICA	Estacao Meteorologica	5	8	0.286189069	Fine Offset	-13.037624041	-52.395545959	Full pack	Talhões	
<input type="checkbox"/> 242 - EST METEOROLOGICA	Estacao Meteorologica	5	8	0.286189069	Fine Offset	-12.97704996	-52.355345408	Full pack	Talhões	
<input type="checkbox"/> 279 - EST METEOROLOGICA	Estacao Meteorologica	5	8	0.286189069	Fine Offset	-13.045404434	-52.40656535	Full pack	Talhões	

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Image 06 – Button to view the Fields linked to the Meteorological Equipment in the
“Station Type / Rain Gauge” registry

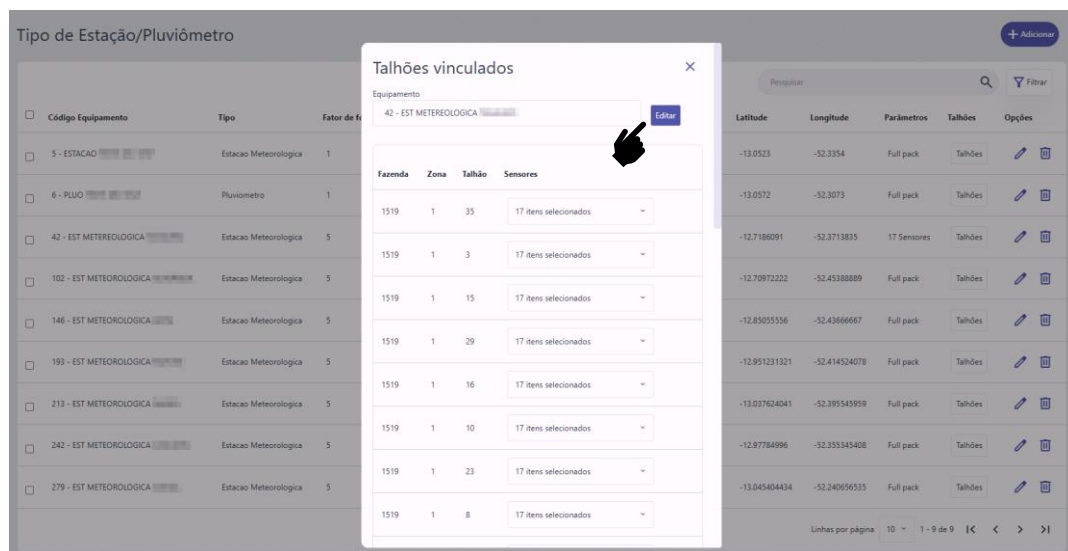


Image 07 – “Linked Fields” screen displaying the “Edit” option

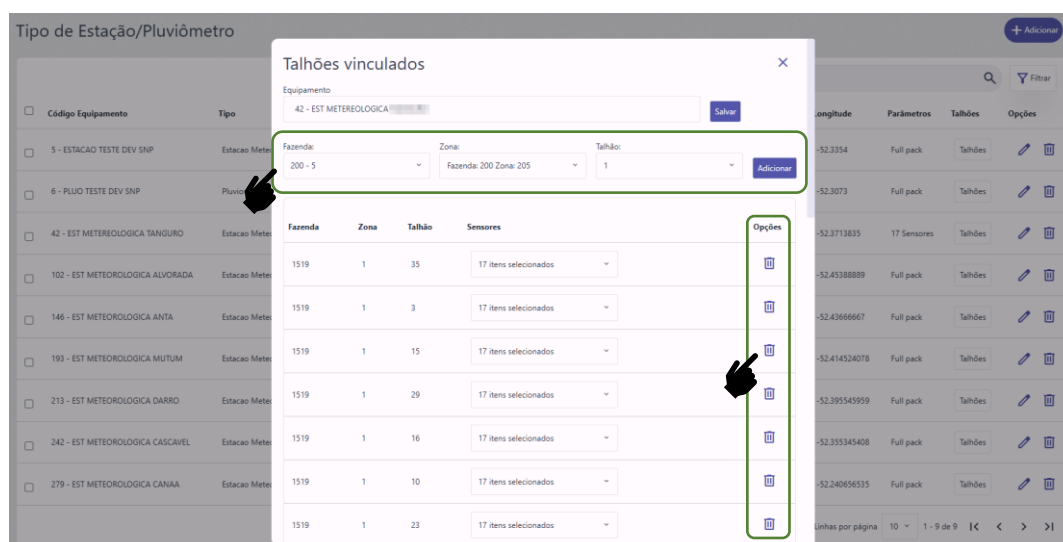
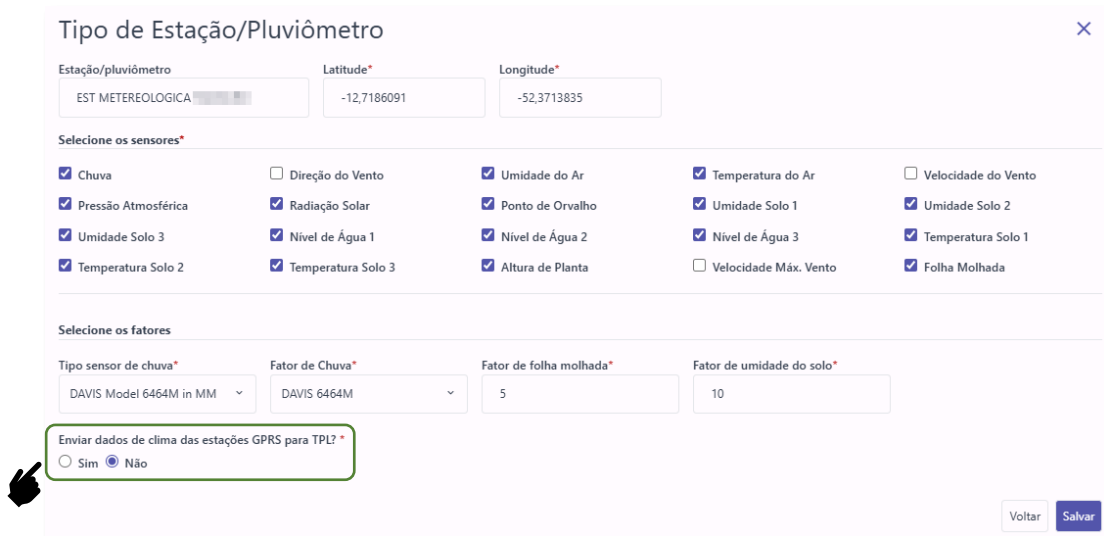


Image 08 – “Linked Fields” screen showing the options to link and unlink Farm, Zone and Field to the Weather Equipment



Tipo de Estação/Pluviômetro

Estação/pluviômetro: EST METEOROLOGICA Latitude: -12,7186091 Longitude: -52,3713835

Selecione os sensores*

<input checked="" type="checkbox"/> Chuva	<input type="checkbox"/> Direção do Vento	<input checked="" type="checkbox"/> Umidade do Ar	<input checked="" type="checkbox"/> Temperatura do Ar	<input type="checkbox"/> Velocidade do Vento
<input checked="" type="checkbox"/> Pressão Atmosférica	<input checked="" type="checkbox"/> Radiação Solar	<input checked="" type="checkbox"/> Ponto de Orvalho	<input checked="" type="checkbox"/> Umidade Solo 1	<input checked="" type="checkbox"/> Umidade Solo 2
<input checked="" type="checkbox"/> Umidade Solo 3	<input checked="" type="checkbox"/> Nível de Água 1	<input checked="" type="checkbox"/> Nível de Água 2	<input checked="" type="checkbox"/> Nível de Água 3	<input checked="" type="checkbox"/> Temperatura Solo 1
<input checked="" type="checkbox"/> Temperatura Solo 2	<input checked="" type="checkbox"/> Temperatura Solo 3	<input checked="" type="checkbox"/> Altura de Planta	<input type="checkbox"/> Velocidade Máx. Vento	<input checked="" type="checkbox"/> Folha Molhada

Selecione os fatores

Tipo sensor de chuva*: DAVIS Model 6464M in MM Fator de Chuva*: DAVIS 6464M Fator de folha molhada*: 5 Fator de umidade do solo*: 10

Enviar dados de clima das estações GPRS para TPL? *

☐ Sim ☒ Não

Voltar Salvar

Image 09 – Weather Equipment configuration screen showing the updates field with the new description “Send weather data from GPRS stations to TPL?”

Go to Main menu > Records > Equipment > Station Type / Rain Gauge > Fields > Linked fields > Edit > Farm / Zone / Field > Add

Available for Environments that have the “Weather” Active solution and in the IT Support and Project Manager user groups. Applied on 10/10/2024.

1.1.3 Records and Monitoring – Alarms

In order to meet the needs of Perennial Vertical, the new “Flow rate out of the parameter” alarm was implemented. This alarm aims to alert every time the flow rate is 25% higher or lower than the ideal flow rate value indicated, thus allowing the user to monitor possible extreme miscalibration problems or mechanical problems in their spraying.

Alarme por Tipo de Equipamento ⓘ

Vazão fora do parâmetro

<input type="checkbox"/>	Tipo de Equipamento	Tipo de Alarme	Grupo de Alarme	Nível de Alarme	Exib. Just?	Exib. Alarme?	Opções
<input type="checkbox"/>	40 - Trator de Pneu Leve	Vazão fora do parâmetro	Alarmes Operacionais	Critico	EXIBE	SIM	

Exportar | Editar Múltiplos | Excluir Múltiplos

Mostrando 1 a 1 de 1 entradas.

Fechar

Image 10 – “Flow rate out of parameter” alarm in the “Alarm by Equipment Type” registry

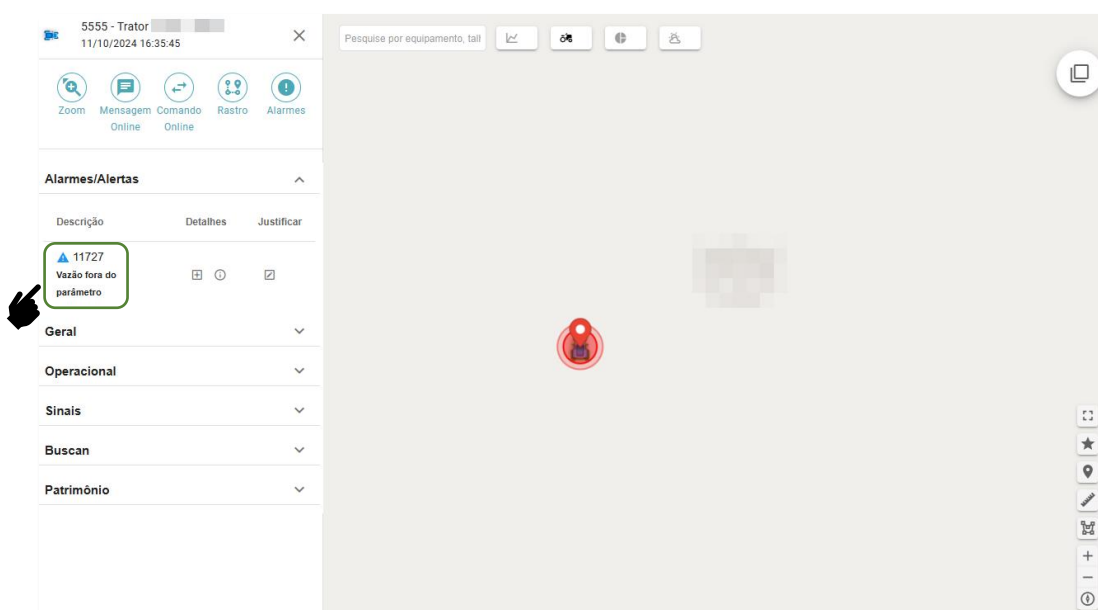


Image 11 – “Flow rate out of parameter” alarm in Monitoring



Go to Main Menu > Records > Alarms > Alarm by Equipment Type > 40 – Light Tire Tractor > Flow out of the parameter and in Top Menu > Monitoring > Equipment > Equipment Type > 40 – Light Tire Tractor > Equipment Pop-up > Alarms/Alerts > Flow outside the parameter



Available for Perennial Vertical Environments.

1.1.4 PBI Reports – Online Operational Variables (Cane)

Improvement made to the “Average Speed (km/h)” tab of the PBI “Online Operational Variables” Report, of the Sugarcane Vertical. As of this version, the

maximum limit to be entered in the “Enter your Goal” field, referring to the established average speed, was changed to 80 (eighty).



Image 12 – “Enter your Goal” field in the “Online Operational Variables” Report

Go to Main Menu > Reports > PBI > Online Reports > Online Operational Variables > Average Speed Tab (km/h) > Enter your Goal

i Available for Sugarcane Vertical Environments.

1.1.5 PBI Reports – Operational Diary (Grains)

Improvement made to the “Production” tab of the “Operational Daily” PBI Report for the Grains Vertical. As of this version, the values in the “Reasons for Stopping (%)” graph and table will be displayed with two decimal places, for better understanding of the values.

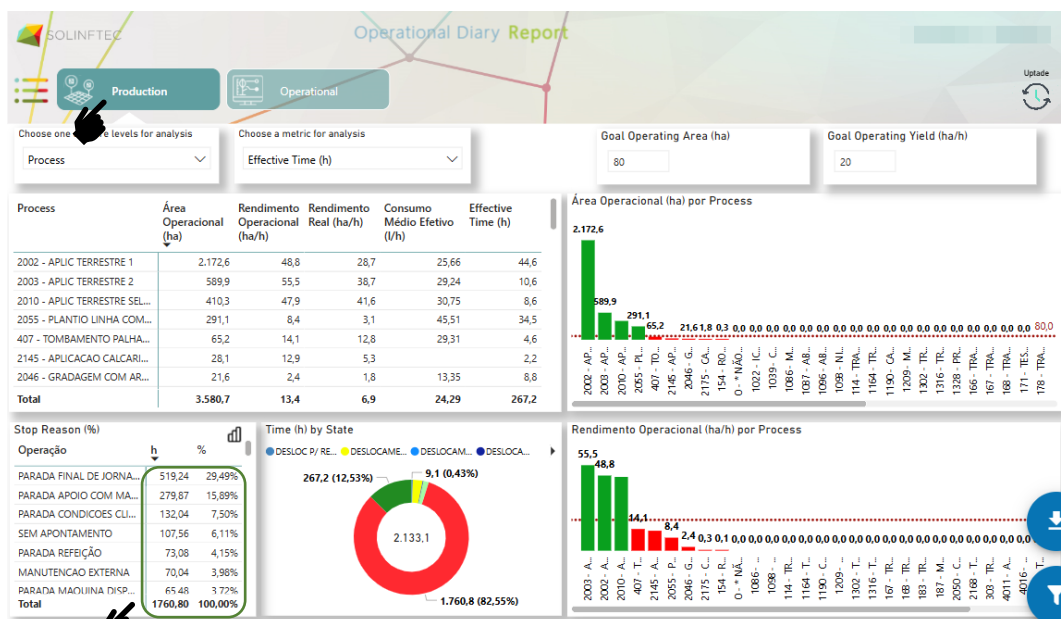


Image 13 – “Operational Diary” report displaying values with two decimal places in the “Reasons for Stopping (%)” table

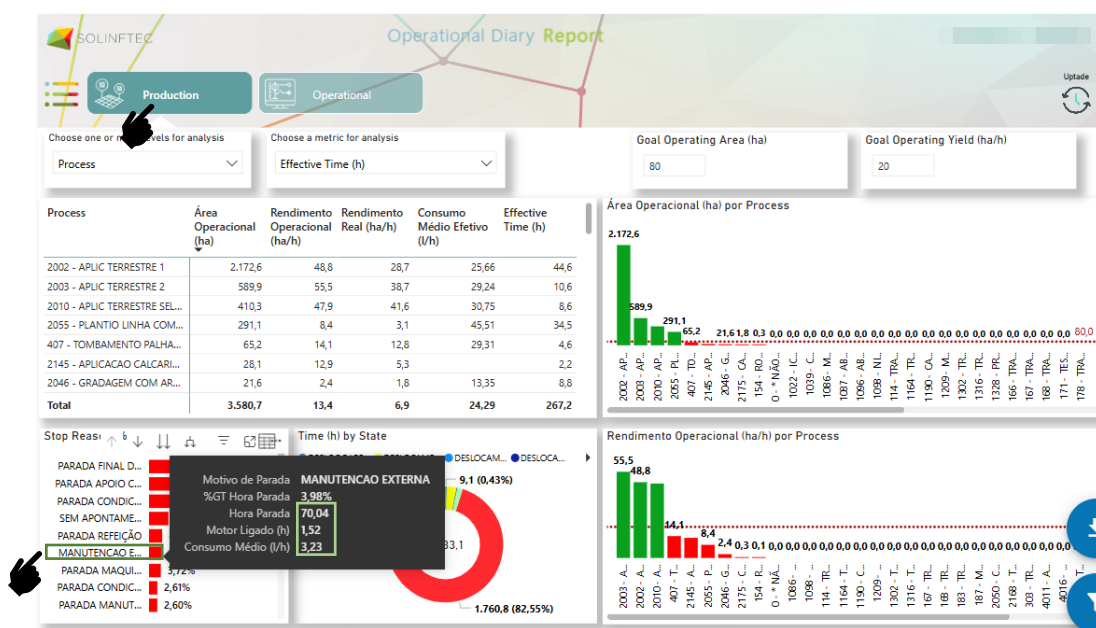


Image 14 – “Operational Diary” report displaying values with two decimal places in the “Stoppage Reasons for Stopping (%)” graph



Go to Main menu > Reports > PBI > Operational Reports > Operational Diary > Production Tab > Reasons for Stopping (%)



Available for Vertical Grains Environments.

1.1.6 PBI Reports – Dynamic Report (Perennial)

Improvement made to in the PBI Report “Dynamic Report”, of Perennial Vertical. As of this version, in the “Table” tab, it will be possible to select the following metrics to be analyzed: **Management Efficiency (%)**, **Mechanical Availability (%)**, **Engine On Stopped (%)**, **No Recording (%)**, **Engine On Stopped (h)**, **Journey Time (h)**, **Available Time (h)**, **Effective Distance (Km)**, **Travel Distance (Km)**, **Refueling Travel Distance (Km)** and **Maintenance Time (h)**.

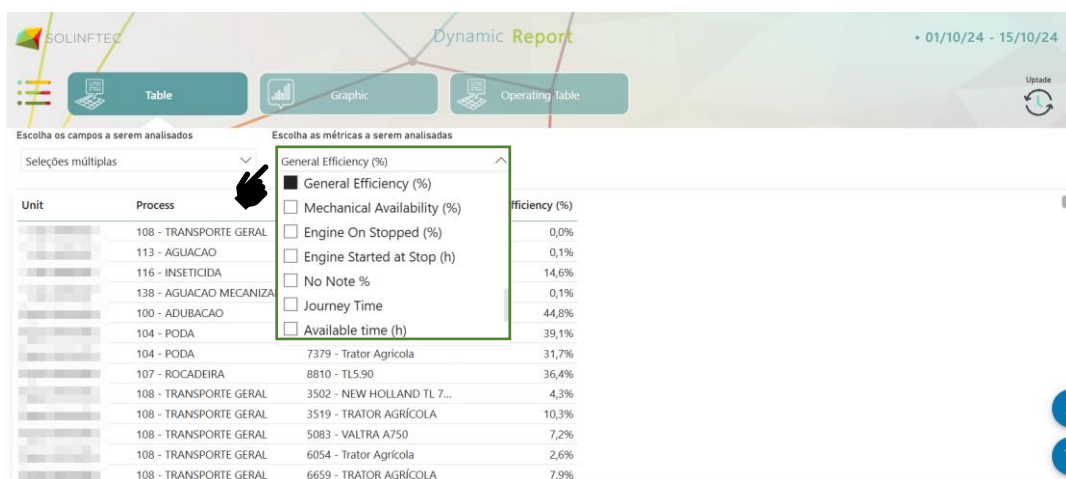


Image 15 – Report displaying new metrics



Go to Main menu > Reports > PBI > Dynamic Report > Table tab > Choose the metrics to be analyzed > Multiple selections

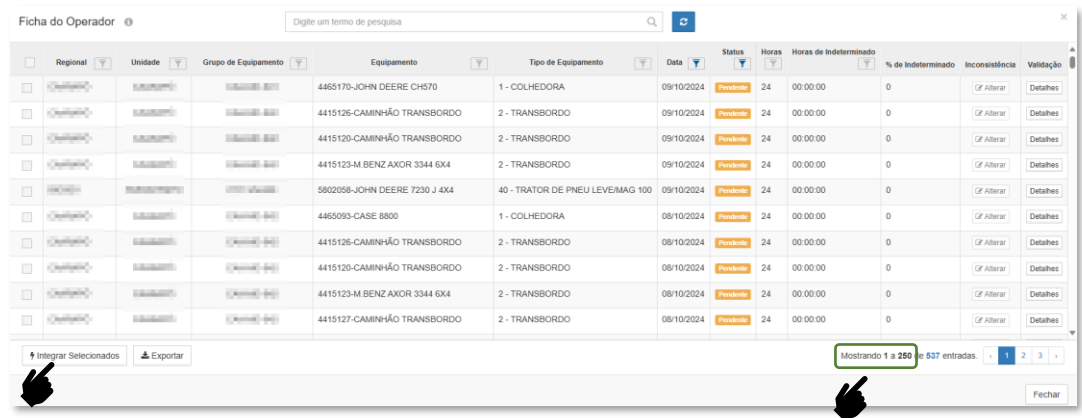


Available for Perennial Vertical Environments that have the extra report “Dynamic Report”.

1.1.7 Tools – Operator File

Improvement made to the “Operator File” Tool. As of this version, 250 (two hundred and fifty) records are displayed per screen page and the “Integrate

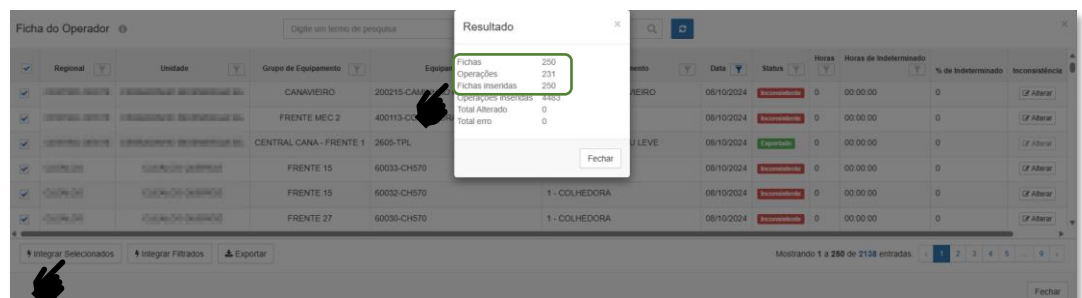
Selected” function has been changed to allow integrating up to 250 (two hundred and fifty) records at a time.



Regional	Unidade	Grupo de Equipamento	Equipamento	Tipo de Equipamento	Data	Status	Horas	Horas de Indeterminado	% de Indeterminado	Inconsistência	Validação
			4465170-JOHN DEERE CH570	1 - COLHEDORA	09/10/2024	Pendente	24	00:00:00	0		
			4415126-CAMINHÃO TRANSBORDO	2 - TRANSBORDO	09/10/2024	Pendente	24	00:00:00	0		
			4415120-CAMINHÃO TRANSBORDO	2 - TRANSBORDO	09/10/2024	Pendente	24	00:00:00	0		
			4415123-M.BENZ AXOR 3344 6X4	2 - TRANSBORDO	09/10/2024	Pendente	24	00:00:00	0		
			5802058-JOHN DEERE 7230 J 4X4	40 - TRATOR DE PNEU LEVEIMAG 100	09/10/2024	Pendente	24	00:00:00	0		
			4465093-CASE 8800	1 - COLHEDORA	08/10/2024	Pendente	24	00:00:00	0		
			4415126-CAMINHÃO TRANSBORDO	2 - TRANSBORDO	08/10/2024	Pendente	24	00:00:00	0		
			4415120-CAMINHÃO TRANSBORDO	2 - TRANSBORDO	08/10/2024	Pendente	24	00:00:00	0		
			4415123-M.BENZ AXOR 3344 6X4	2 - TRANSBORDO	08/10/2024	Pendente	24	00:00:00	0		
			4415127-CAMINHÃO TRANSBORDO	2 - TRANSBORDO	08/10/2024	Pendente	24	00:00:00	0		

Mostrando 1 a 250 de 537 entradas

Image 16 – Operator File Tool displaying 250 records per page



Regional	Unidade	Grupo de Equipamento	Equipamento	Tipo de Equipamento	Data	Status	Horas	Horas de Indeterminado	% de Indeterminado	Inconsistência	Validação
			CANAVEIRO	200215-CA							
			FRENTE MEC 2	400113-CC							
			CENTRAL CANA - FRENTE 1	2605-TPL							
			FRENTE 15	60033-CH570							
			FRENTE 15	60033-CH570							
			FRENTE 27	60033-CH570							

Mostrando 1 a 250 de 2138 entradas

Image 17 – Operator File Tool Integrating 250 records at a time

Go to Main menu > Tools > Operator file > Integrate selected

Available for Sugarcane Vertical Environments.

1.2 Bugs

1.2.1 Maps and Monitoring – Meteorology

Adjustment made to “Weather Maps” in order to correctly display the descriptions of Rain Gauge equipment cards in Spanish and English.



Top Menu > Maps / Monitoring > Top Menu on Map > Meteorology > Weather
Maps > Equipment > Rain Gauge Type Equipment Cards



Available for Environments that have the “Weather” solution active.

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