#### **Lely Horizon Data Installation**

#### **Prerequisites**

To begin, download the Lely Horizon application. The application icon is depicted in *Figure 1*. We recommend using a Windows operating system to ensure compatibility, as this will allow you to download datasets directly from the application. Please note that the application does not currently support downloading datasets on macOS.



Figure 1: Application icon

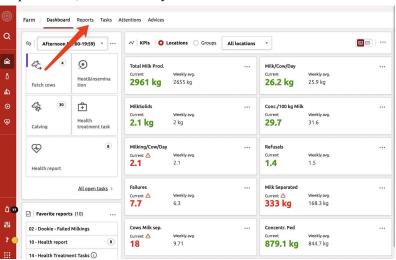
#### Downloaded data

1. Log in to Lely Horizon using your Username and Password, then click the "Sign In" button. The dashboard will appear as shown in *Figure 2*.

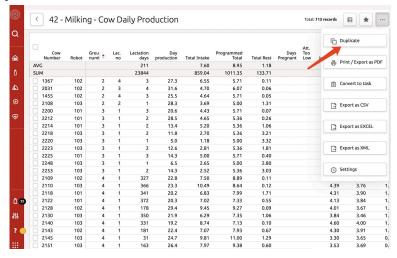


Figure 2: The login screen and dashboard

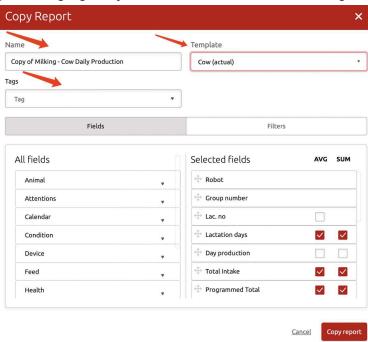
2. Click on the "Reports" tab; this is where you can download the data.



- 3. Open any report. The data across reports is identical; the only difference is based on your selection, resulting in multiple reports with different names and tags.
- 4. To create your own report, click on the "Duplicate" tab. This will allow you to generate a customized report.

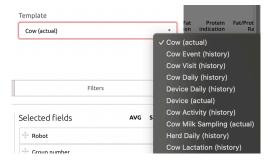


5. Rename the report to a name of your choice. It is recommended to use a meaningful name for easier searching. Selecting tags is optional but can also facilitate searching.

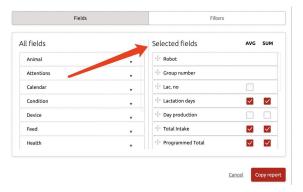


- 6. In the Template tab, there are 10 available templates:
  - Cow (actual)
  - Cow Event (history)
  - Cow Visit (history)
  - Cow Daily (history)
  - Device Daily (history)
  - Device (actual)
  - Cow Activity (history)
  - Cow Milk Sampling (actual)
  - Herd Daily (history)
  - Cow Lactation (history)

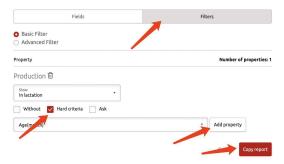
Selecting the appropriate template is crucial, as **each template contains different fields.** We will provide a <u>summary</u> of the fields for each template to assist users in selecting the correct template based on their needs.



7. Drag the fields you are interested in to the "Selected Fields" section.



8. Click on the Filters tab—this step is crucial. Typically, you should retain the Basic Filter, though you can add various properties depending on the template you've selected (Note: Different templates offer different properties to choose from). Ensure that the "Hard Criteria" option is checked to download the dataset correctly. Finally, click on "Copy Report."



9. To export the selected duplicate files, navigate to the files you wish to export, click on the "..." (More Options) tab, choose your desired export format (PDF, CSV, Excel, or XML), and follow the prompts to complete the export process.



#### **Summary of Fields of Each Template**

#### Cow (actual)

Cow (actual)	
Ainmal	Age, Arrival Date, Barn Name, Birthday, Bull, Category, Departure, Description, Father LifeNo, Father No., Gender, Gestation, group, Hair color, Herd, I&R, Keep, KeepInGroup, Label, Life number, Location Mother, Mother LifeNo, Mother No., Name, Production, Reproduction, Responder, Sire, Sire Code, Tranfer, Transfer Herd, Use as Sire
Attentions	SSC Attention, SCC CHronic Attention, Accustomizing, Attention Activity, Attention Colostrum, Alt. Conductivity, Attention Expected Calving, Attention Expected DryOff, Attention Failed Milking, Attention Feed Amount, Attention First Heat, Sick Score, AttentionInHeat, Attention Inseminate, Attention Inseminate Heifer, Att. Inversion/Ketosis, Attention Milk Separation, Attention No Heat, Attention Pregnancy Check, Att. Reminder, Attention Rumination, Att. Too Late, Att. Too Low, Udder Health Att, Attention Weight, Do Not Milk Teat, Att. Color, Sick Change Status, Heats after pregnancy
Calendar	Age at first calving, Arrival Contact Name, Calving Remark, Calving Interval, Reproduction remarks, Charge Number, Colostrum Date, Colostrum +/- Days, Days since heat, Days To Calving, Days To Dry Off, Dry off date, Dry off days, Expected calving date, Exp. Calving, Expected Dry Off Date, Expected First Heat, First Heat +/- Days, Insaminate Heifer +/- Days, Heat Remarks, Ins. Date, Since Insemination, Insemination No, Insemination, Inseminator, Ins. Remarks, DryOff Contact Name, Lac Stage (Days), Calving date, Lactation days, Lac. no, Last heat, No of Calves, Number of Insemination, Pregnancy Check Date, Pregnancy Contact, Days Pregnant, Pregnancy Remark, Pregnancy Sta., Pregnant date, Reminder Category, Reminder Text, Reminder Date, Sire, Insaminate Heifer Date
Condition	Activity Deviation, Current decline {KG} / d, First Heat Attention Date, Severeness, Sensor, HealthAttentionUnit, Value, Health index, Sick Score, Rumination Herd Avg., Activity, Last Activity DateTime, Last Rumination Datetime,

	Max Heat Chance, Heat Chance Date Time, Max rumination change 24 hours, Total cons. weight loss, Weight Last Milking, Weight, Weight Avg, Weight Avg Dev, Nr of attentions, Onset of heat, Optimum Insemination Moment, Rumination Att. Count, 3 day rumination difference, Total Rumination Minutes, Weight Attention, Weight at Calving
Device	Robot
Feed	Rest Feed 1, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 2, 20, 21, 3, 4, 5, 6, 7, 8, 9; Intake 1, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 2, 20, 21, 3, 4, 5, 6, 7, 8, 9; Total 1, 10, 11, 12, 13, 14, 15; Programmed 16, 17, 18, 19; Total 2; Programmed 20, 21; Total 3, 4, 5, 6, 7, 8, 9; Total Rest Total Intake, Programmed Total
Health	Body, Body Date, Breast, Breast Date, Claw, Claw Date, Treated within last, Disease date, Disease Name, Disease Name (With Milk Separation), End Meat Till, End Milk Till, Health Remarks, Heat index, Last Fertility Datetime, Last Fertility Diagnose, Last Fertility Remarks, Location LF, Location LR, Location RF, Location RR, Diagnosis remarks, Weight, Weight Date
Lactation	Total milk yield current lactation, Production Average Day, Average Milkings, Production Rest Feeding Avg, Production Rest Feeding Total, Production Total Amount Feeding Avg, Production Total Amount of Feeding Total, Production Total Averages, Average Milk Speed
Milk	Udder Health Att Count, Average fat %, Avg. Day Yield / Avg Milking, Average protein %, Away, Box Time, CDT Dev. LF %, CDT Dev. LR %, CDT Dev. RR %, Impact of Cell Count on Herd, Color Code LF-LR-RF-RR, Milk Separation Remaining Days, Deviation Day Yield, Predicted day production (Dry off), Inversion border, Ketosis border, Failures, Interval, MilkSolids, Milk yield exp, Visit Result, Fat/Protein remark, Interval Exceed, Concentrate / 100 {KG} Milk, Concentrate {KG} / Milk Avg {KG}, Last 24 Hours Milk Production, Day Production (24h) Avg., Last 24 Hours Milk Production, Failures Avg., Fat indication, Fat/Protein Ratio, ISK, Lactose indication, Avg. Milkings, DayProduction Date, Protein indication, Refusals Avg., Milk

	Destination, Milk Destination Reason, Milk
	interval, Milk now, Sum milk solids({KG}), Milk Speed, Milk Teat LF, Milk Teat LR, Milk
	Teat RF, Milk Teat RR, Milk Under
	Supervision, Milkyield/ Boxtime, Average Milk
	Yield/ Box Time/ Week, Bottle no., SCC Indication, Percentage High Cell Count,
	Connect Time, Nr of front scans, Front scan
	time, Temperature Attention, Attachments LF,
	Color Code LF, CDT LF, CDT Att. LF, Cdt
	Avg. LF, DM Time LF, M Time LF,
	Attachments LR, Color Code LR, CDT LR,
	CDT Att. LR, Cdt Ava. LR, DM Time LR, M
	Time LR, Milk Time Duration, Max. Speed,
	Temp, Milk time, Milk Visit yield, Post
	Treatment Time, Pre Treatment Time, Nr of rear
	scans, Rear scan time, Attachments RF, Color Code RF, CDT RF, CDT Att. RF, Cdt Avg. RR,
	DM Time RF, M Time RF, Attachments RR,
	Color Code RR, CDT RR, CDT Att. RR, Cdt
	Avg. RF, DM Time RR, M Time RR, Nr. of
	udder scans, Udder scan time, NotMilk Teat
	LF-LR-RF-RR, No. of Failures, Nr of Refusal,
	Priority feeding, Production/life day, Predicted
	Production (305 days), Sampling date, Sampling
	%fat, Sampling Pro. Yield, Sampling %protein,
	Avg SCC, Hot Rinse Activated, Milk Separation
	Status, End Date, Milk Separation Tank, Milk Separation Type, Milk Separation Start Date,
	Sum fat (KG), Total life production, Sum
	protein (KG), Train Cow, Treatment Time
Routing	Last Routing Direction, Routing Active,
	Routing Area Name, Routing From Date,
	Routing From - Till Time, Routing Till Date
Time	Date, Milk Visit Date Time, Last Routing Date
	Time

#### **Cow Event (histroy)**

Animal	Name, Barn Name, Birthday, Description, Father LifeNo, Gender, Gestation, Group, Group number, Hair Color, I&R, Keep, KeepInGroup, Label, Life number, Location, Mother LifeNo, Mother, Production, Reproduction, Responder, Sire code, Father Name, Animal number, Use as Sire
Attentions	Color
Calendar	Calendar type, Contact name, current Lactation, Insemination type, Sire, Sire Number, Interval Days, calf1, 2, 3, Lac. Days, No. of Calves, Lac. no, Dry off Remark, Calendar date, Remarks, Transfer Remarks
Condition	Sick score
Health	Claw/Teat, Location LF, Location LR, Location RF, Location RR, Manual commit, Treatment apply date, Use treatment plan, Meat withhold, Milk withhold, Cure period, Disease description, Disease name, Official disease code, Medicine Category, Brand name, Application done, Expected application done date time, Application done person, Description, Medicines, Medicine name, Registration code, Amount of times, Committed, Medicine dosage, Dosage Unit, MusId, Interval, Interval Time, Medicine, Treatment plan remark, Prescription nr., Route of Administration, BHB, Body, Breast, Claw, Temperature, Weight, Show Teats, Medication Used, Advise, Continuation, Treatment Plan Name, Remark
Routing	Last Routing Direction

#### **Cow Visit (histroy)**

Animal  Calendar  Condition	Age, Mother, Name, Barn Name, Birthday, Description, Father LifeNo, Gender, Gestation, Group, Group number, Hair Color, I&R, Keep, KeepInGroup, Label, Life number, Location, Mother LifeNo, Mother, Production, Reproduction, Responder, Father Name, Use as Sire  Current Lactation, Lactation days, Lac. no Weight, Weight Avg, Weight Avg. Dev.
Device	Box Time, Address, Device Name, Device Type Family, Refusal Type, Routing Direction
Feed	Intake 1, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 2, 20,21, 3, 4, 5, 6, 7, 8, 9, Total Intake
Milk	Avg Milk yield / Box time, CDT Dev. LF %, CDT Dev. LR %, CDT Dev. RF %, CDT Dev. RR %, Impact of Cell Count on Herd, Color Code LF-LR-RF-RR, Color Code, Failures, Interval, Refusals, Success, Visit Result, Last milking successful, Milkings, Milk Destination Reason, Milk Destination, Milk Speed, Milkyield/Boxtime, Bottle no., SCC Indication, SCC Attention, Percentage High Cell Count, Connect Time, Nr of front scans, Front scan time, Temperature Attention, Attachments LF, Color Code LF, CDT LF, CDT Att. LF, Cdt Avg. LF, Take Off Reason LF, DM Time LF, Failed MilkTime LF, M Time LF, Attachments LR, Color Code LR, CDT LR, CDT Att. LR, Cdt Avg. LR, Take Off Reason LR, DM Time LR, Failed Milk Time LR, M Time LR, Lactose indication, Max. Speed, Temp, Milk Time, Milk yield, Expected Visit Yield, Post Treatment Time, Pre Treatment Time, Nr of rear scans, Rear scan time, Attachments RF, Color Code RF, CDT RF, CDT Att. RF, Cdt Avg. RF, Take Off Reason RF, DM Time RF, Failed MilkTime RF, M Time RF, Attachments RR, Color Code RR, CDT RR, CDT Att. RR, Cdt Avg. RR, Take Off Reason RR, DM Time RR, Failed MilkTime RR, M Time RR, Nr. of udder scans, Udder scan time, Treatment Time
Time	Milk Visit Date Time, Visit Date, Hour, VisitMonth, VisiteQuarter, VisitWeek, VisitYear

#### **Cow Daily (histroy)**

Animal	Mother, Name, Barn Name, Birthday, Description, Father LifeNo, Gender, Gestation, Group, Group number, Hair Color, I&R, Keep, KeepInGroup, Label, Life number, Location, Mother LifeNo, Mother, Production, Reproduction, Responder, Father Name, Use as Sire
Attentions	Attention Feed
Calendar	Current Lactation, Lac Days, Lac Number, Lac Stage (Days)
Condition	Total Eating Minutes, Eating %, Weight, Rumination Minutes, Rumination %
Feed	Rest Feed, Total Intake, Total Programmed, Rest Feed 1, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 2, 20, 21, 3, 4, 5, 6, 7, 8, 9; Total Intake, Intake 1, 10, 11, 12, 13, 14, 15; Programmed 16, 17, 18, 19, Total 2, Programmed 20, 21, Total 3, 4, 5, 6, 7, 8, 9; Intake 1, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 2, 20, 21, 3, 4, 5, 6, 7, 8, 9
Milk	Day production, Day production Dev., Milk Production Energy Corrected, Concentrate / 100 {KG} Milk, Day Production Avg, Failure Number, Failure Avg, Fat indication, Fat/Protein Ratio, ISK, Lactose indication, Milking Number, Milk Avg., Official, Protein indication, Refusal Number, Refusal Avg, SCC Indication
Score	Body, Breast, Claw, Contact, Score Person, Score Date, Weight
Time	Date, Production Month, Production Quarter, Production Week, Production Year, Score Date, Score Month, Score Week, Score Year

## **Device Daily (histroy)**

Device	Device Type
Feed	Feed Intake 1, 2, 3, 4, 5, No. of Cows (Feed)
Milk	Box Time, CDT LF, CDT LR, CDT RF, CDT RR, Connect Time, DMT LF, DMT LR, DMT RF, DMT RR, Nr of Front Scans, Front Scan Time, Max Milk Speed, Tot. Milk Deviation, Milk Duration, Milkings/Cow, Milk/Cow, Milk/Milking, Milk Speed Avg., MT LF, MT LR, MT RF, MT RR, Milk Yield/Box Time, Nr of Cows, Nr of Failure, Nr of Milking, Nr of Refusal, Post Treatment Time, Pre Treatment Time, Nr of Rear Scans, Rear Scan Time, No. of Feed Visits, Milk Exp., Separated Milk, Milk Tot., Treatment Time, Nr of Udder Scans, Udder Scan Time
Robot	Barn Name, Cleaning Time, Cleaning Time %, Device Location, Device Name, Time Free %, Time Milking %, Refusing Time, Refusing Time %, Time Free, Time Milking, Training Time, Training Time %
Time	Date, Month, Quarter, Week, Year

## **Device (actual)**

Device	Calibrated LF, Calibrated LR, Calibrated RF, Calibrated RR, Status, Device Type, Fat Protein, Lactose, Last Reference, Installation date LF, Installation date LR, M4Use 1 Animal, M4Use 2 Animal, M4Use 3 Animal, M4Use 4 Animal, Name, M4Use 1 Datetime, M4Use 2 Datetime, M4Use 3 Datetime, M4Use 4 Datetime, M4Use Device Description, M4Use Device Name, M4Use Device Type, M4Use 1 Milk Yield, M4Use 2 Milk Yield, M4Use 3 Milk Yield, M4Use 4 Milk Yield, Installation date RF, Installation date RR, Samples
Feed	Feed Intake 1, 2, 3, 4, 5
Milk	Dead Milk Time LF, Dead Milk Time LR, Dead Milk Time RF, Dead Milk Time RR, Tot. Milk Deviation, Nr of Cows, Nr of Failure, Nr of Milking, Nr of Refusal, Separated Milk
Robot	Barn Name, Brushes Nr. Of Milkings, CDT LF, CDT LR, CDT RF, CDT RR, Device Description, Device Location, Device Name, Device Serial No., Device Status Message, Brushes Last Change Date, Liner Last Change Date, Liner type, Liner Nr. Of Milkings, Milkings/Cow, Milk/Cow, Milk/Milking, Milk Time LF, Milk Time LR, Milk Time RF, Milk Time RR, Time Free %, Time Milking %, Time Free, Time Milking, Milk Expected, Milk

## **Cow Activity (history)**

Animal	Name, Barn Name, Birthday, Description, Father LifeNo, Gestation, Group, Group number, Hair Color, I&R, Keep, KeepInGroup, Label, Life number, Location, Mother LifeNo, Mother, Production, Reproduction, Responder, Father Name, Use as Sire
Attentions	Att. Activity, Att. Too Low, Att. Rumination
Calendar	Calendar Action, Lactation days
Condition	Activity, Activity Average, Activity Suspicious, Daily activity, Threshold Attention Heat probability, Total Eating Minutes, Activity Attention Value, Heat Probability, Att. Rumination, Total Rumination Minutes
Feed	Rest Feed
Milk	Day Production, Day Production Avg
Time	Activity Date Time

# **Cow Milk Sampling (actual)**

Animal	Mother, Name, Barn Name, Birthday, Description, Father LifeNo, Gestation, Group, Group number, Hair Color, I&R, Keep, KeepInGroup, Label, Life number, Location, Mother LifeNo, Mother, Production, Reproduction, Responder, Father Name, Use as Sire
Milk Sampling	Away Time, Before Date, Bottle Number 1, Bottle Number 2, Bottle Number 3, Bottle Number 4, Bottle Number 5, Day Yield, Day Yield Avg, Robot Address, Visit Date Time, Visit Time 1, Visit Time 2, Visit Time 3, Visit Time 4, Visit Time 5, Visit Time Before, Visit Date Time Before, Failed Milking, Failed Milking Before, Milk Visit Yield 1, Milk Visit Yield 2, Milk Visit Yield 3, Milk Visit Yield 4, Milk Visit Yield 5, Milk Visit Yield Before, Bottle Number, Milk Visit Yield, Number of Samples

#### **Herd Daily (history)**

Calendar	Lac Avg Days
Condition	Weight, Rumination Minutes
Feed	Rest Feed 1, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 2, 20, 21, 3, 4, 5, 6, 7, 8, 9; Concentrates Average, Total Intake, Intake 1, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 2, 20, 21, 3, 4, 5, 6, 7, 8, 9; Rest Feed Average, Programmed 1, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 2, 20, 21, 3, 4, 5, 6, 7, 8, 9, Total feed, Rest Feed Total
Milk	Average cell count, Minutes in pasture, Day production, Expected Daily Yield, Fat indication, Fat/Protein Ratio, Herd Name, BSK Average, Concentrate / 100 {KG} Milk, Lactose indication, Milking cows, Milking cows > 14 days, Total Amount of Milk Produced, Nr of Cows, Number of Failures, Number of milkings, Number of Refusals, Pasture day, Percentage in pasture, Protein indication, Amount of Milk Separated
Time	Date

# **Cow Lactation (history)**

Animal	Mother, Name, Barn Name, Birthday, Description, Father LifeNo, Gestation, Group, Group number, Hair Color, I&R, Keep, KeepInGroup, Label, Life number, Location, Mother LifeNo, Mother, Production, Reproduction, Responder, Father Name
Calendar	Calving date, Lac Days, Lactation No
Feed	Rest feed, Total Amount Feed
Milk	Day Production Avg, Milk - Fat {KG}, Lactose Indication, Lactation Production, Milk - Protein {KG}, Avg Number Of Milkings, Average Milk Speed, Fat indication %, Lactose indication %, Protein indication, Milk (official registrations), Predicted Production (305 days), Avg Number Of Refusals, Amount of Milk Separated, Total Failures