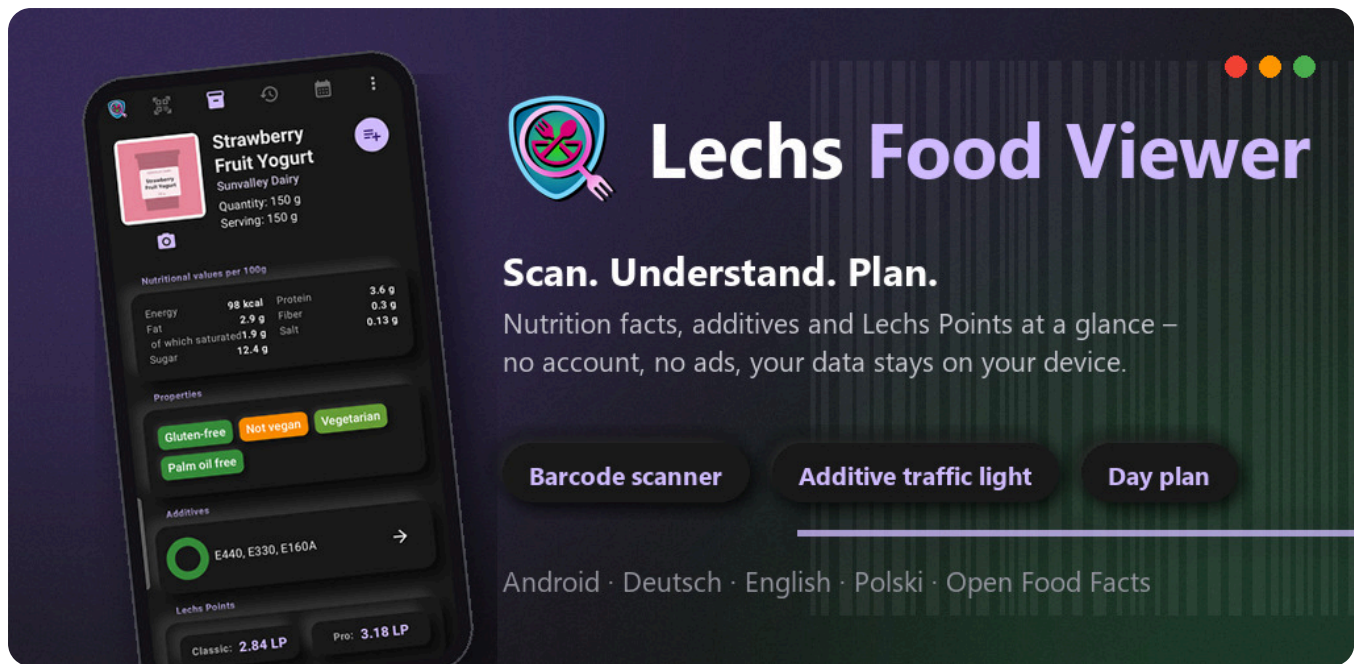




Lechs Food Viewer

Scan barcodes, understand nutrition facts and additives, plan your day

Lechs Food Viewer shows what is inside packaged food: point the camera at a barcode and the app fetches nutrition facts, additives and product details from Open Food Facts, the free food database. On top of that come a rating of its own, a day plan and a calculator for your personal requirement. No account, no ads, no tracking — everything you record stays on your device.

Version 4.0 · Android 8.0 or newer

Lech Kuffel · kuffel.info/apps/lechsfoodviewer

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Overview

The app does four things, and they work together:

- **Scan:** capture a barcode and see in a second what is in the product — nutrition facts, additives, vegan, vegetarian, gluten-free, palm oil.
- **Rate:** Lechs Points condense calories, sugar and protein into one number that lets you compare two products right at the shelf.
- **Plan:** the day plan adds up what a day comes to and sets it against the budget the calculator derives from your body data.
- **Look up:** the additive lexicon explains 665 E numbers — without a product and without internet, so it works in the middle of the shop.

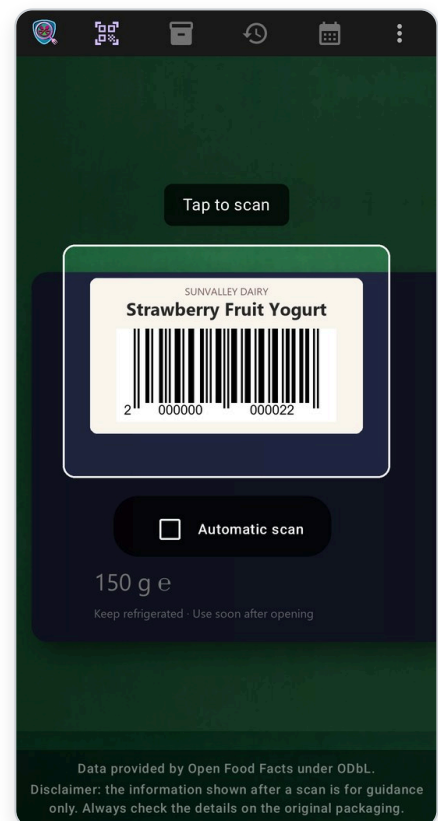
The app is available in German, English and Polish. The language follows the system language and can be changed per app in the Android settings.

Scanner

The app always starts with the camera — that is the path you take most often.

- **Automatic or on tap:** with automatic scanning on, the app recognizes the code as soon as it is inside the frame. Otherwise you tap the frame and trigger it yourself.
- **Recognition on the device:** Google ML Kit evaluates the camera image on the phone itself. It never leaves the device.
- **Found or not:** if the product is in Open Food Facts, the app switches to the product page. If it is missing, it says so plainly — and you can add it at Open Food Facts yourself.
- **No double scan:** the product currently shown is skipped during automatic scanning so it does not trigger again when you switch back.

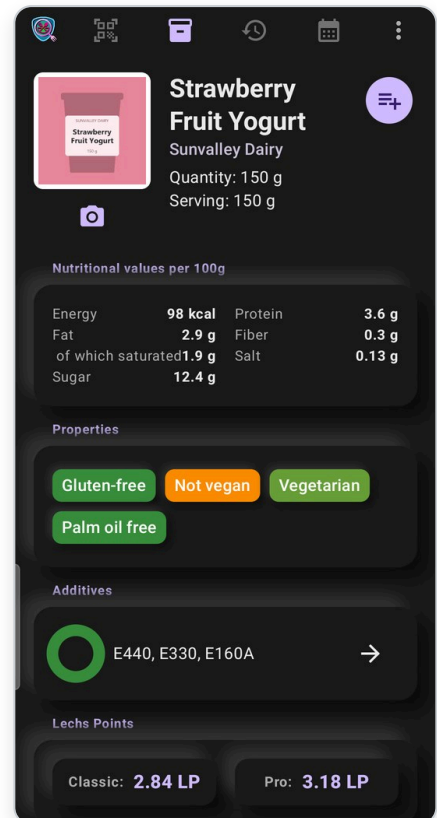
The back key returns to the scanner from every page. Only from the scanner does it close the app.



Product page

Everything known about a product is here, ordered from top to bottom:

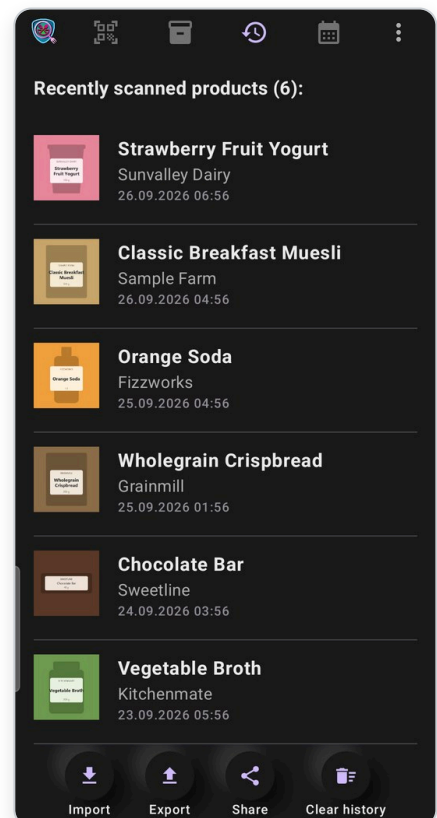
- **Header:** image, name, brand, package size and the serving the figures refer to.
- **Nutrition per 100 g/ml:** energy, fat, of which saturated, sugar, protein, fiber and salt.
- **Properties:** gluten-free, vegan, vegetarian, with or without palm oil — color-coded wherever the data allows.
- **Additives:** the E numbers it contains with a traffic-light color; a tap opens name, explanation and, where necessary, a warning.
- **Lechs Points:** Classic and Pro side by side, plus the way into the formula explanation.
- **Your own photo:** the camera button under the image takes a photo or picks one from the gallery. It replaces the Open Food Facts image everywhere in the app.



History

Every scanned product is kept and can be opened again offline.

- **Tap:** opens the product again without a new network request.
- **Long press:** turns on selection mode — delete several entries at once or move them into the day plan together.
- **Export and import:** the whole history goes out as a CSV file and comes back in, for instance when moving to a new phone.
- **Share:** sends the same file straight to another app.
- **Clear:** empties the list — the stored images are not affected, they have their own management in the settings.



Day plan

The plan collects what a day comes to and does the arithmetic for you.

- **Five ways in:** straight from a scan, from the history (several at once, too), via text search on Open Food Facts, from the list of standard foods — or manually with your own photo.
- **Standard foods:** over 90 entries from apple to onion, with an emoji symbol and a filter field, for everything that comes without packaging.
- **Amounts:** type grams or milliliters freely or change them in steps; points and calories follow immediately.
- **Daily total:** Lechs Points, calories, fat, sugar, protein and salt for the whole day are at the top.
- **Favorites:** save a good day or a recurring meal as a template and load it later with one tap.

The screenshot shows the 'Day plan' screen of an app. At the top, there's a header with icons for home, search, history, favorites, and settings. Below the header, the title 'Day plan' is followed by 'Daily totals'. A large box displays '21.9 LP (802 kcal)'. Below this, a table shows the breakdown: Fat (21.2g), Sugar (74.9g), Protein (16.6g), and Salt (0.7g). A list of food items follows, each with a small icon, the item name, and its nutritional details (amount, kcal, LP, and macronutrients). The items are: Classic Breakfast Muesli (60 g • 223 kcal • 4.7 LP), Strawberry Fruit Yogurt (150 g • 147 kcal • 4.3 LP), Wholegrain Crispbread (30 g • 100 kcal • 1.8 LP), Orange Soda (250 ml • 105 kcal • 4.7 LP), and Chocolate Bar (45 g • 227 kcal • 6.5 LP). At the bottom, there are four buttons: Add, Load, Save, and Clear.

Item	Amount	kcal	LP	Fat (g)	Sugar (g)	Protein (g)	Salt (g)
Classic Breakfast Muesli	60 g	223	4.7	3.7	8.7	5.9	
Strawberry Fruit Yogurt	150 g	147	4.3	4.4	18.6	5.4	
Wholegrain Crispbread	30 g	100	1.8	0.5	0.5	3.0	
Orange Soda	250 ml	105	4.7	0.0	25.5	0.0	
Chocolate Bar	45 g	227	6.5	12.6	21.6	2.3	

Requirement calculator

So the daily total has a reference, the app works out your personal budget.

- **Input:** sex, weight, height, age and activity level (PAL).
- **Basal rate:** by the Mifflin-St Jeor equation, then scaled to the total by the PAL factor.
- **Weight-loss goal:** 400 calories a day off, if you want it.
- **Result:** the budget in Lechs Points and in calories, at least 20 points.

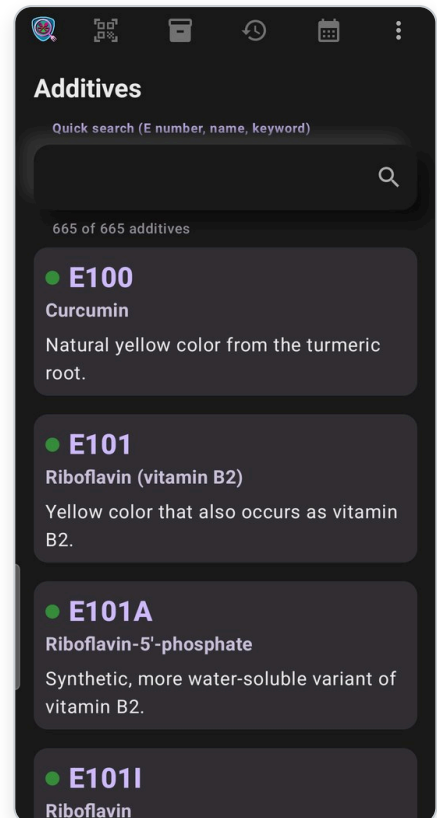
The figures are for orientation, not a medical or dietary recommendation.

The screenshot shows the 'Points/calorie calculator' screen. It has a header with the same icons as the Day plan screen. The title is 'Points/calorie calculator' followed by 'Your daily requirement'. A large box displays '30 LP (1520 kcal)'. Below this, there are input fields for Gender (Male, Female), Weight (kg) (68), Height (cm) (170), Age (years) (42), and Activity level (PAL) (Sitting, hardly any activity (e.g. off)). There is a checkbox for 'I want to lose weight' which is checked. At the bottom, there is a disclaimer: 'The calculation uses the Mifflin-St Jeor equation for the basal metabolic rate, adjusted to your activity level (PAL). One Lechs Point (LP) corresponds to about 50 kcal. These values are for guidance only.'

Additive lexicon

All 665 additives sit inside the app and need neither a product nor a connection.

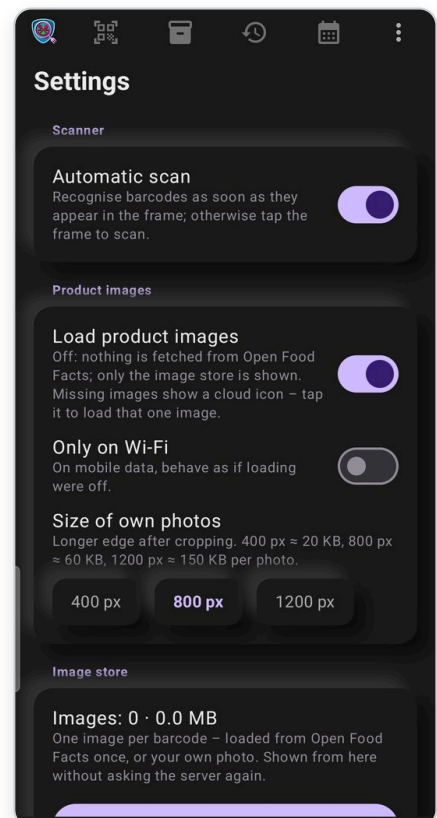
- **Traffic light:** green (harmless), yellow (disputed or limited) and red (critical, with a warning).
- **Quick search:** number, name or keyword — "16" finds the carotenoids, "color" all colorings.
- **For each substance:** name, what it is used for, how it is classified and, where appropriate, a warning.
- **Three languages:** the Polish and English substance names follow the Open Food Facts taxonomy so they match what is printed on the packaging.



Settings and image store

Product images come from a server that is not always reachable — so the app keeps every image it has loaded once, one file per barcode.

- **Load images:** switch off entirely or limit to Wi-Fi. With loading off, the tile shows a cloud; a tap fetches that one image anyway.
- **Photo size:** 400, 800 or 1200 pixels edge length for your own pictures.
- **Load missing history images:** fetches everything in the history that has no image yet, in one run.
- **Back up and share:** the image store goes out as a ZIP archive — flat, with <barcode>.jpg as the file name, so a PC can read it too.
- **Restore:** import an archive, either replacing everything or only adding what is missing — after a reinstall the images are back in one step.
- **Automatic scan:** the same switch as in the scanner.



The formulas

Lechs Points are no secret recipe — both formulas are in the app and here. The values refer to the amount eaten, not to 100 g.

Classic

$$\text{points} = \text{kcal} / 50 + \text{sugar (g)} / 10 - \text{protein (g)} / 10$$

A negative result counts as 0. The simple view: calories and sugar cost, protein gives back.

Pro

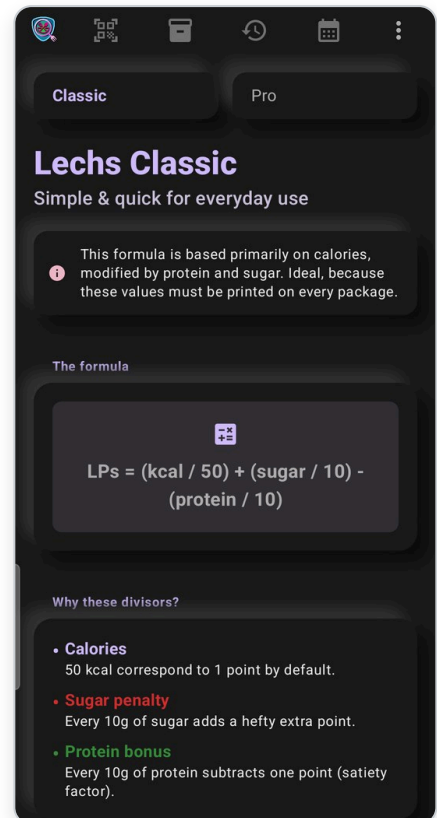
$$\text{points} = \text{kcal} \times 0.02 + \text{saturated fat} \times 0.15 + \text{sugar} \times 0.10 - \text{protein} \times 0.08 - \text{fiber} \times 0.05$$

Not capped, so negative values are possible — a sign of a very favourable food.

Daily requirement

$$\text{basal rate (Mifflin-St Jeor)} \times \text{PAL} - 400 \text{ kcal} \\ \text{(optional), divided by 50}$$

One Lechs Point corresponds to about 50 calories; the result is floored at 20 points.



Data, privacy and licenses

The app works without an account and collects nothing about you.

- **On the device:** history, day plan, favorites, body data and the image store are local only. There is no server on the provider's side.
- **Sent out:** only the barcode or your search term — to Open Food Facts, to fetch the product data.
- **Barcode recognition:** runs on the device with Google ML Kit. ML Kit sends no images, but usage statistics to Google.
- **Product data:** comes from Open Food Facts (Open Database License) and is maintained by a worldwide community. How complete an entry is therefore depends on the product.
- **Libraries:** the open-source libraries used are listed with license and author in the app under "About the app".

What is printed on the packaging always prevails. Lechs Points and the traffic light are an orientation aid and do not replace nutritional advice.