Custom Fields & Formulas

Extra boxes on a ticket — what they do, how the kiosk asks for them, and how to write a formula. Setup → Schema.

The basics

A custom field is a box you add to a ticket for something the standard fields don't cover: moisture, a bale count, a contract number, a farm field. Once added it appears on the weigh forms, on printed tickets (if you allow it), in the grids, on reports and in exports.

Type	What it holds	Asked at the kiosk?
Text	Free typing	Yes, on an on-screen keyboard
Dropdown	A choice from a list: typed on the field, or a Dropdown Fields list	Yes, as a list
True / False	Yes or No, or your own words from a True / False list (On / Off)	Yes, as a two-item list
Integer	A whole number	Yes, on the number keypad
Decimal	A number with decimals	Yes, on the number keypad
Formula	A number worked out from other values	Never — it is computed, not typed

Each field also carries:

- **Entry** — Optional, or Required so a ticket can't be saved without it.
- **Sort order** — where it sits among the other fields on the forms and tickets. Easier: **Arrange Fields** at the top of Weigh In, Weigh Out or Edit lets an Admin drag every field into order and into the **left or right column** (the ■ button, or drag between the two lists; **Split evenly** shares them out again), and set the forms' text size (Normal, Compact or Small, so more fits on one screen), for the whole site.
- **Show on printed ticket** — whether the driver's paper shows it.
- **Active** — retire a field without deleting it. Tickets that carry it still read correctly.
- **Show on Weigh In / Weigh Out** — untick to keep it off those two office pages. It isn't asked for there even when Required, and saving there leaves its value alone. Edit Ticket still shows it.
- **Min** and **Max** (optional) — for Integer and Decimal fields, the lowest and highest value allowed. **Decimals** (0–6) sets how many places a Decimal or Formula field shows.
- **Show at kiosk** and **Show on phone** — include it in the kiosk's or the phone's weigh-in questions. Both ticked for a new field, so drivers are asked what the office forms ask. Untick and drivers there only see it when a commodity asks for it (below).

Fields a commodity asks for

Some fields only mean something for one kind of load: a bale count for hops, a temperature and fat content for milk, the field and moisture for corn. List them on the commodity: **Database** → **Tables** → **Commodities**, the **Fields** button on its row.

Column	What it does
Field	A custom field, or a standard one such as Location or Customer.

Required	Ticked: the load can't go on without an answer. Unticked: the field is offered for this commodity but can be left blank.
Due	**Weigh In**: needed before the truck weighs in. **Weigh Out**: the weigh-in can go ahead without it, and it is needed before the load closes — a temperature taken while the truck unloads.
Kiosk	Ticked: the kiosk asks it too, even if the field isn't set to Show at kiosk. Unticked: the kiosk leaves it to the office.
Phone	The same, for the driver's phone.

- A custom field listed on any commodity belongs to those commodities: the forms, kiosk and phone leave it off every other load. A custom field no commodity lists shows on every load as before.
- A standard field is never hidden — listing it only makes it required for that commodity.
- On the office forms the fields change as soon as the Commodity is picked. One due at Weigh Out reads *(needed by Weigh Out)* on the Weigh In page. A field that already holds a value stays in view after the commodity changes, so nothing is erased unseen.
- At the kiosk and phone, keep Commodity ahead of these fields in Setup → Prompts → Ask In This Order: a commodity's fields can't be asked before the commodity is known.

The standard fields: names, visibility and order

The **Header** column on Standard Fields is what the site calls each built-in field. Type *Product* for Commodity or *Vendor* for Carrier and that word is used on the weigh forms, grids, Database tabs, the kiosk and phone, exports and printed tickets. Leave it blank to keep the standard name. Only the words change: stored tickets, reports and the API are not affected. A ticket caption you retyped in the Report Designer is left as you set it.

Visibility set to **Hidden** takes a field off the weigh forms, grids, reports, printed tickets and kiosk prompts; values already stored are kept. Weights, dates and the ticket number always show. Hiding Carrier also hides Truck ID, since trucks belong to carriers, and while Retained Tare is on both stay visible. Job and Bin have no Hidden: they show while Use Jobs or Use Bin Inventory is on (Setup → System).

Order sorts the fields on the weigh forms. Standard and custom fields share one scale, so a custom field can sit between two built-in ones. The printed ticket's layout is set in the Report Designer.

Dropdown fields and value / text lists

Only a **Dropdown** field has choices; a Text field is always typed. Its choices can be typed straight into the field, one per line, or come from a list kept on **Database** → **Dropdown Fields**, chosen with **Choices come from**.

A Dropdown Fields list pairs each **value** with the **text** people see. The value can be text, a whole number, a decimal or true / false:

List	Value type	Items (value = text)
Status	Integer	1 = Clean, 2 = Dirty
Tarped	True / False	true = On, false = Off

Tickets store the value; the weigh forms, kiosk, phone, grids, exports and printed tickets show the text. Change the list once and every field that uses it follows. To stop offering an item, untick **Active** rather than deleting it, so old tickets keep showing its text. A list that a field uses can't be deleted.

A **True / False** list always has exactly two items, *true* and *false*: they can't be added to or deleted, only given their text. For a yes / no answer on a ticket, make a **True / False** field. It shows *Yes* / *No* by itself; point its

Choices come from at a True / False list to show your own words instead, for example a *Status* field on a *statusdd* list reading On (true) / Off (false). The ticket stores true or false either way.

Sub fields: one list that depends on another

A sub field is a Dropdown field whose choices depend on an answer already given. Set **Sub field of** on the field and its choices are grouped under each value of that parent — a *Variety* under Commodity, a *Farm Field* under Commodity, a *Pivot* under Location.

You manage the choices on **Database** → **Tables**: pick the parent value, then list the choices that belong to it. A sub field can itself be the parent of another sub field, as deep as you need.

Each choice carries two switches of its own:

- **Active** — a retired choice disappears from every screen, while tickets that already carry it still read correctly. Retire rather than delete.
- **Use At Office**, **Use At Kiosk** and **Use On Phone** — where the choice is offered. Leave a choice active for the office but keep it away from drivers: a pivot that isn't ready to harvest, say. Every list on Database → Tables (commodities, customers, carriers, trucks and so on) has the same three ticks.

A sub field can't be picked until its parent is. On the weigh forms its dropdown stays greyed out, reading *Select Commodity first*, until the parent has a value; at the kiosk and on the phone it is skipped when the parent was left blank.

At the kiosk a sub field is always asked immediately after the field it depends on, wherever you drag that field in Setup → Prompts. It can't be moved on its own — asked earlier, its list would be empty.

Choices from a list you keep in one place

Typing the same names under every parent invites typos and drift. Set **Choices come from** on a sub field and its choices are picked from a list you maintain once — the Locations table, say, another dropdown field, or a Dropdown Fields list. On Tables you then choose from that list instead of typing, and a name that isn't on it is refused.

Why it matters across seasons. A farm field is listed once. This season it is ticked under ONIONS; next season you untick it there and tick it under Silage. Nothing is retyped, and last season's tickets still say ONIONS.

Each name is used once. A farm field grows one thing at a time, so a name ticked under one parent value can't also be ticked under another — Tables leaves it out of the list and says where it is used. Take it off there first, then add it where it belongs now.

Narrowing by a second answer

Sometimes a choice belongs to a pair of answers rather than one. Set **Also narrow by** and the field is filtered by two: the pivots of the location the driver picked *that are growing what they are hauling*.

Location	Commodity	Pivots offered
A	Corn	1
A	Wheat	2, 6
B	Potatoes	1, 5 — 3 is set aside until it is ready
B	Wheat	2, 4

Set it up on Tables: pick the parent value and the second value, then list the choices for that pair. A choice left with no second value belongs to its parent whatever the other answer is, so a half-finished map still works. The kiosk asks for this field after both answers, and the office weigh forms filter the same way.

Here too a choice is used once: within one parent value it belongs to a single second answer. Pivot 2 at Location A grows Wheat or Corn, not both. Pivot 2 at Location B is a different pivot, so it has its own answer.

How the kiosk behaves

- A list with one choice answers itself and moves on — no screen with a single row on it.
- A list that resolves to nothing is skipped rather than shown empty.
- The order of questions is yours to drag: Setup → Prompts → Ask In This Order.
- Rules under “Ask Differently For…” can skip a prompt, or ask for one normally switched off, by commodity, carrier or customer — at the kiosk, on the phone and on the office weigh forms.

Formula fields

A Formula field is worked out for you whenever a ticket is saved, then stored like any other value — so it shows on tickets and grids, exports with everything else, and can be totalled on reports. Nobody types it.

What a formula can read

The weights every ticket has:

```
NetWeight   GrossWeight   TareWeight   InWeight   OutWeight   NetTons
```

…and any numeric custom field, by name. Put the name in [brackets] when it contains spaces. A formula may read another formula, as long as that one has a lower sort order so it is worked out first.

What you can do with them

Operators `+ - * / ( )` and the functions `round(x, n)`, `abs(x)`, `min(a, b)`, `max(a, b)`.

The builder

Under the formula box, “Insert a field…” lists the ticket weights and every numeric field you have, and drops the right name in at the cursor — brackets and all. The buttons beside it add the operators and functions, leaving the cursor where the value goes.

Examples

```
NetWeight / 56    bushels of corn from pounds

NetTons * [Price]  value of the load

round(NetWeight * (1 - Moisture / 100), 0)  dry pounds

max(NetTons - 20, 0)  tons over a 20-ton allowance
```

Worth knowing

- A missing value leaves the result blank rather than guessing at zero.
- Editing a formula recalculates every ticket, not just the ones saved afterwards, so history matches the definition.
- **Decimals** sets how the result is rounded for display.
- On a report, open **Totals** on the grid toolbar to sum, average or count a formula column like any other number.

Habits worth keeping

- Retire, don't delete. Setting a field or a choice to inactive keeps every ticket that carries it readable; deleting a field removes its values from those tickets.
- Renaming a field is safe — the values already saved on tickets are untouched.
- Ask for a field before the one that depends on it. The order list keeps sub fields in step automatically; a rule that reads an answer needs that answer given first.