

Materials

New for Version 1.39.4

- The ability to use the dilution method to calculate undiluted quantity of wetttable powders
- The ability to use the Company Setup option under Service Order/Service Setup Options to calculate either the Dilution Factor or Undiluted Qty when entering Materials

Materials

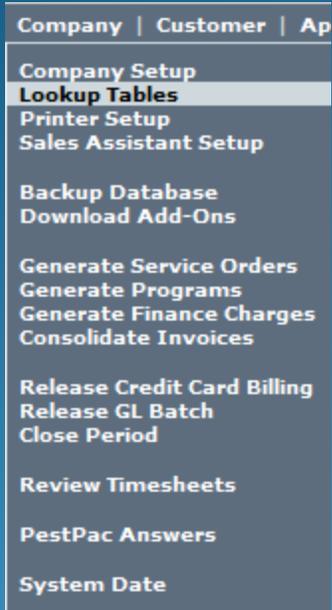
PestPac allows the flexibility of adding Materials in three different ways: by ratio method (traditional method), by dilution calculation method and by pre-diluted method. By the end of this presentation, you will be able to:

- Select which method you want to use by individual material
- Use each of the three methods
- Complete accurate data entry

This presentation will use the example of [Termidor SC](#) for the ratio and dilution calculation methods, [Tempo WP](#) for the wettable powder dilution calculation method and [Contra Blox](#) for the pre-diluted method.

Units of Measure Lookup Table

Prior to using any method, the Units of Measure of Lookup Table must be filled out. If you use either the Dilution Calculation method or the Pre-Diluted method, you must assign a standard unit of measure to each unit of measure that is in the Units of Measure lookup table.



From the Company Menu, select
Lookup Tables.



Select the Units of Measure lookup
table.

Maintain Units of Measure

[Add Unit of Measure](#)

[Exit](#)

Jump To:

Unit of Measure	Description
BG	Bag
BK	Block
CS	Case
EA	Each
GA	Gallon
LI	Liter
OZ	Ounce
PA	Pail
PL	Pallet
PT	Pint
QT	Quart

Several Units of Measure will be pre-filled in. Click on Add Unit of Measure to add a new Unit of Measure

Maintain Units of Measure Add Cancel

Unit of Measure:

Description:

Relationship to Standard Units of Measure

Unit of Measure:

Quantity: as Standard Volume

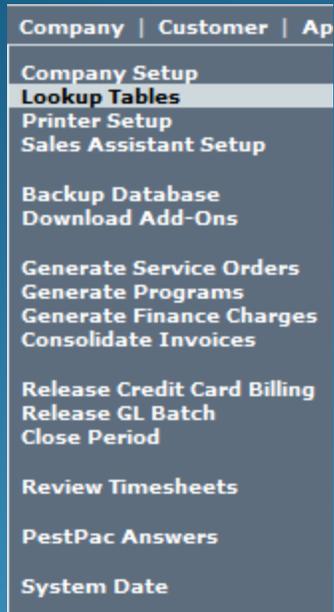
Enter in a Name and Description for the Unit of Measure. Under Relationship to Standard Unit of Measure, select a UOM and enter in a quantity. In the example above, the UOM that relates to the newly entered “FO” is FLOZ or fluid ounce. The ratio of FLOZ to FO is 1 since 1 fluid ounce equals 1 fluid ounce.

If you had a unit of measure called “Backpack” and it related to the standard unit of measure, Pounds, and there were 50 pounds in a Backpack, you’d enter in 50 in the Quantity field.

If using the Dilution Calculation Method or the Pre-diluted Method, you must assign a Standard Unit of Measure to each Unit of Measure in the lookup table.

Materials Lookup Table

Each of the three Material calculation methods can be filled out through the Materials lookup table.



From the Company Menu, select
Lookup Tables.



Select the Materials lookup table.

Maintain Materials

Prefer/Prohibit

Export

Add Material

Exit

Click on Add Material

Maintain Materials

Add

Cancel

Material:	<input type="text" value="TERMIDOR SC"/>
Product Name:	<input type="text" value="Termidor SC"/>
Manufacturer:	<input type="text" value="BASF Professional"/>
EPA Registration:	<input type="text" value="7969-210"/>
Active Ingredient:	<input type="text" value="Fipronil"/>
Application Method:	<input type="text" value="BROADCAST"/> <input checked="" type="checkbox"/>
Application Equipment:	<input type="text"/> <input checked="" type="checkbox"/>
Target Pest:	<input type="text" value="TERMITES"/> <input checked="" type="checkbox"/>
Material Group:	<input type="text" value="TERMITE GROUP"/> <input checked="" type="checkbox"/>
Require Area Text:	<input type="checkbox"/>
CA Treatment Type:	<input type="text"/> <input checked="" type="checkbox"/>
Oregon Report UOM:	<input type="text"/> <input type="button" value="v"/>

Enter in the basic information about the material including name, Manufacturer, EPA Registration Number, Active Ingredient. If you'd like to default the following fields from their lookup table options, use PageDown on the keyboard to select the option: Application Method, Application Equipment, Target Pest and Material Group. If you'd like to require that your technicians enter a comment for this material when applying it using the Handheld, check the Require Area Text box. If you are in CA or OR, select the proper Material Type/UOM from the respective fields.

Ratio Method

The ratio method allows the user to enter in acceptable ratios of undiluted material to water (or other dilution agent). This method should not be used for pre-diluted or pre-packaged materials such as bait blocks. Use this method if you'd like to have a fixed number of acceptable dilution amounts that your technicians can use.

If you used PestPac prior to version 1.39.1, all of your materials will be defaulted to this method when you upgrade to version 1.39.1.

Dilution Calculation Information

- Continue using dilution ratios entered prior to 1.39.1 for this material
- This material needs to be diluted (e.g. liquid chemical, wettable powder)
- This is a prepackaged/pre-diluted material (e.g. bait block, gel, dust)

Finished Unit of Measure:

Active Ingredient %:

Dilution Factor:

Acceptable Dilution Factors:

Enter a list of comma-separated values, e.g. "0.001,0.002,.003".
Values may be named by adding a name followed by a pipe ("|"), e.g. "Low|0.001,Medium|0.002,High|0.003".

Undiluted Unit Of Measure:

- Finished Unit of Measure: Select the Unit of Measure that the technician applies the material in.
- Active Ingredient %: Enter in the percentage of active ingredient in the Material. This can be found on the label.
- Dilution Factor: Enter the default dilution factor. A dilution factor is the amount of undiluted material to water (or other dilution agent). In this example, the dilution factor is .08 (according to the label). This tells the program to calculate Material usage as .08 oz (undiluted UOM) in a gallon (finished UOM).
- Acceptable Dilution Factors: Enter in the acceptable dilution factors for this material from the label.
- Undiluted UOM: Enter in the UOM that is used to measure the amount of

Material	Qty	UOM	Dilution	Undil. Qty	UOM	Application Meth.	Lot Number	Delete
TERMIDOR SC <input checked="" type="checkbox"/>	1.5000	GA	0.08000000	0.1200	FO <input checked="" type="checkbox"/>	BROADCAST <input checked="" type="checkbox"/>		<input type="checkbox"/>

[Add New Material](#) :: [Show Advanced Fields](#)

When entering material information in the Service Setup screen, Service Order Detail screen or Posting screen, the program will calculate the undiluted quantity based on the ratios entered in the Materials lookup table. In the example above, the user would enter in the Quantity of finished material (Qty field) and select which Dilution to use. Since the Dilution ratio in the example above is 1.000, the program will calculate that there is 1.000 ounce of diluted material to each gallon of finished material. Since there are 2 gallons of finished material in the example above, there were 2 ounces of undiluted material in that application.

Dilution Calculation Method

Liquid to Liquid Dilution

The Dilution Calculation Method allows a great deal of flexibility for your technicians , especially if they use varying dilution amounts . This method also utilizes PestPac to calculate undiluted quantities of Material for you based on the dilution percentage of the material. This method can be used for any material that needs to be diluted in water (or other dilution agent).

This method calculates based on the % solution of the material as opposed to a direct ratio of undiluted material to diluted material that the Ratio method utilizes.

To Mix 0.06% Finished Solution of TERMIDOR® SC Termiticide/Insecticide	Start with (gallons of water)	Add (ounces of TERMIDOR® SC Termiticide/Insecticide)
100 gallons finished solution	99.25	78 oz. (or 2 qt. + 14 oz.)
50 gallons finished solution	49.75	39 oz. (or 1 qt. + 7 oz.)
25 gallons finished solution	24.75	19 oz. (or 1 pt. + 3 oz.)
1 gallon of finished solution	1	0.8 oz

To Mix 0.125% Finished Solution of TERMIDOR® SC Termiticide/Insecticide	Start with (gallons of water)	Add (ounces of TERMIDOR® SC Termiticide/Insecticide)
100 gallons finished solution	98 gal.	156 oz. (or 1 gal. + 28 oz.)
50 gallons finished solution	49.75 gal.	78 oz. (or 2 qt. + 14 oz.)
25 gallons finished solution	24.75 gal.	39 oz. (or 1 qt. + 7 oz.)
1 gallon of finished solution	1 gal.	1.6 oz

ACTIVE INGREDIENTS:

Fipronil: 5-amino-1-(2,6-dichloro-4-(trifluoromethyl) phenyl)-4-((1,R,S)-(trifluoromethyl)sulfinyl)-1-H-pyrazole-3-carbonitrile 9.1%

INERT INGREDIENTS: 90.9%

EPA Reg. No. 7969-210

EPA Est. No.

The first step to using this method is to find the minimum and maximum application rates on the label. In the example using Termidor SC, the minimum rate is 0.06 and the maximum is 0.125. You must also find the Active Ingredient percentage. In this example, it is 9.1%.

Dilution Calculation Information

- Continue using dilution ratios entered prior to 1.39.1 for this material
 This material needs to be diluted (e.g. liquid chemical)
 This is a prepackaged/pre-diluted material (e.g. bait block, gel, dust)

Finished Unit of Measure:

Make sure to fill in a Standard Unit of Measure and quantity in the Units of Measure lookup table for the above Unit of Measure.

Dilution/Mixture Label Information and Preferences

Minimum Dilution Percent as found on Label	<input type="text" value="0.0600"/> %	
Maximum Dilution Percent as found on Label	<input type="text" value="0.1250"/> %	Description
First Preferred Dilution Percent for Technicians	<input type="text" value="0.0600"/> %	<input type="text" value="Low"/>
Second Preferred Dilution Percent for Technicians	<input type="text" value="0.1000"/> %	<input type="text" value="Medium"/>
Third Preferred Dilution Percent for Technicians	<input type="text" value="0.1250"/> %	<input type="text" value="High"/>
Active Ingredient %:	<input type="text" value="9.1000"/>	
Undiluted Unit Of Measure:	<input type="text" value="FO"/>	

- Finished Unit of Measure: Enter the UOM that the material is applied in.
- Minimum/Maximum Dilution Percent: Enter in this information from the Label.
- Preferred Dilution Percentages: Enter up to 3 preferred dilution percentages and a description for each. Other description methods may be target pests. Please note that although you can enter 3 preferred percentages, the technician may use any dilution percentage between the minimum and maximum.
- Active Ingredient %: Enter the active ingredient percentage from the label.
- Undiluted UOM: Enter in the UOM that technicians use to measure the amount of undiluted material they're going to add to water (or other dilution agent).

Material	Qty	UOM	Dilution	Undil. Qty	UOM	Application Meth.	Lot Number	Delete
TERMIDOR SC	2.2500	GA	0.0600	1.9000	FO	BROADCAST		<input type="checkbox"/>

[Add New Material](#) :: [Show Advanced Fields](#)

In the Service Setup screen, Service Order Detail screen or the Posting screen, the user will enter the finished amount of product (Qty) and enter a dilution percentage. The program will then calculate the amount of undiluted material using the finished amount and dilution. The formula used behind the scenes to calculate this amount is:

Undiluted Qty= (Dilution)(1/Active Ingredient %)(Finished Qty)(Ratio of undiluted UOM to Finished UOM)

$1.9 = (0.06)(1/9.1)(2.25)(128)$ ← there are 128 ounces in a gallon. If you were using milliliters as the undiluted UOM and liters as the finished UOM, you would use 1000 instead of 128.

Dilution Calculation Method

Wettable Powder to Liquid Dilution

Version 1.39.4 takes into account wettable powders or packets that are diluted in water (or other dilution agent). You will still use the dilution calculation method for wettable powders. Tempo WP (EPA #432-1304) will be used in this example.

USE RATE	
	<ul style="list-style-type: none">• Apply as a general surface spot, mist, or crack & crevice application.
	0.025% —10 g (2 scoops) /gal water
	0.05% — 20 g (4 scoops) /gal water
	<ul style="list-style-type: none">• Use high rate for severe infestations, faster knock down, and longer residual.



On the label find the **minimum** dilution rate and how much wettable powder is used for that dilution rate in a **single gallon** of water. In this example, take note that the minimum dilution rate is .025% and the amount of wettable powder needed to get the dilution rate in a single gallon of water is 10 grams.

Dilution Calculation Information

- Continue using dilution ratios entered prior to 1.39.1 for this material
- This material needs to be diluted (e.g. liquid chemical, wettable powder)
- This is a prepackaged/pre-diluted material (e.g. bait block, gel, dust)

Finished Unit of Measure:

Dilution/Mixture Label Information and Preferences

Minimum Dilution Percent as found on Label %

Maximum Dilution Percent as found on Label %

First Preferred Dilution Percent for Technicians %

Second Preferred Dilution Percent for Technicians %

Third Preferred Dilution Percent for Technicians %

Active Ingredient %:

Undiluted Unit Of Measure:

Description

- This chemical is a wettable powder or water soluble packet that is diluted in water

This chemical is mixed at the rate of per gallon for the minimum dilution rate above.



- On the Materials screen, fill out the screen as previously described in this presentation for the dilution method.
- Check the box at the bottom of the screen to indicate that this is a wettable powder.
- In the “This chemical is mixed at the rate of _____ per gallon for the minimum dilution rate above” enter the amount of material to get the minimum dilution percentage in a single gallon of water as described in the previous slide.
- Save the material.

Material	Qty	UOM	Dilution	Undil. Qty	UOM	Application Meth.	Lot Number	Delete
TEMPO WP	1.5000	GA	0.0250	15.0000	GR	CRACK N CREVIC		<input type="checkbox"/>

[Add New Material](#) :: [Show Advanced Fields](#)

In the Service Setup screen, Service Order Detail screen or the Posting screen, the user will enter the finished amount of product (Qty) and enter a dilution percentage. The program will then calculate the amount of undiluted material using the finished amount and dilution. The formula used behind the scenes to calculate this amount is:

Undiluted Qty= (Finished qty in gallons)(dilution rate/minimum dilution rate)(wetable powder qty per gallon for minimum dilution rate)

$$15 = (1.5)(.025/.025)(10)$$

Please note that for this formula, if your finished UOM is something other than gallons, you will need to convert that amount to gallons first before you can use this formula.

Undiluted Method

This method should only be used for pre-packaged or pre-diluted items such as bait blocks, granules, gels or anything else that does not need to be diluted. It should never be used for materials that need to be diluted in water (or other dilution agent).

ACTIVE INGREDIENT: Bromadiolone;		
3-[3-(4'-Bromo-[1,1'-biphenyl]-4-yl)-3-hydroxy-1-phenylpropyl]-4-hydroxy-2H-1-benzopyran-2-one.....	0.005%	
INERT INGREDIENTS*	99.995%	
*Contains Denatonium Benzoate	TOTAL	100.000%



Find the active ingredient percentage of the product from the label.

Ready-to-use CONTRAC BLOX bait pieces feature a patented multi-edge design that gives rodents plenty of gnawing edges per piece. The 1-oz. bait pieces fit easily into burrows, bait stations and tight baiting places. A hole through the center lets PMPs wire/hang the bait, or place on bait securing rods for added security.

Also find the weight (or volume) of each unit of the material. In the example of Contrac Blox, each block has a weight of 1 ounce.

Dilution Calculation Information

Continue using dilution ratios entered prior to 1.39.1 for this material

This material needs to be diluted (e.g. liquid chemical)

This is a prepackaged/pre-diluted material (e.g. bait block)

Finished Unit of Measure:

Each unit of this material has a volume/weight of

Active Ingredient %:

Undiluted Unit Of Measure:

- Finished UOM: Select the UOM that is used to measure how much material is applied.
- Each unit of this material has a volume/weight of: Enter the amount of material and select the UOM from the label for how much each unit of the material weighs.
- Active ingredient %: Enter in the active ingredient percentage from the label.
- Undiluted UOM: Select the undiluted UOM. In most cases, it will be the same UOM as the finished UOM.

Material	Qty	UOM	Dilution	Undil. Qty	UOM	Application Meth.	Lot Number	Delete
CONTRAC BLOX	2.0000	BK	1.0000 OZ per BK	2.0000	BK	SPOT		<input type="checkbox"/>

[Add New Material](#) :: [Show Advanced Fields](#)

The user can enter in the amount of material applied (Qty field). The Dilution field will be defaulted with the volume/weight information from the Material lookup. The program will calculate how much undiluted material (Undil Qty) per Finished amount (Qty) is used. In most cases, these numbers will be the same.

Materials

This concludes the Materials tutorial. If you have additional questions, please contact Support at 800-762-0301 or use the support option within your software.