



**Are Your
Pesticides
Measuring
Up**



Management

Pest ID

Product

Calibration

mixing

Site Awareness

Regulations

Small Mistakes Can Be Costly

Herb	\$/ <u>Ounce</u>	Per Acre <u>Rate</u>	<u>Cost</u>	Over (%)			Over 600 acre day Left in the Field
				<u>10</u>	<u>15</u>	<u>20</u>	
A	4	3	\$12	\$1.2	1.8	2.4	\$720-1440
B	35	1/3	11.60				
C	6	2	12				
D	4.5	3.5	15.75	1.6	2.4	3.15	\$960-1890

**I Hope the Take-Home
Message is Obvious!**



**Measure By
The Pound**



Measure By The Gallon



**Measure By
The Ounce**



First Conclusion

More precision
required when
measuring
products by
the ounce

LIQUID OUNCES





FUNGICIDES

insects in turfgrass

Not for Sale or Use in Nassau and Suffolk Counties, New York

Active Ingredients:

halofenozide: Benzoic acid, 4-chloro-,
2-benzoyl-2-(1,1-dimethylethyl)
hydrazide..... 22.3%

Inert Ingredients..... 77.7%

Total Ingredients 100.0%

Contains 2 pounds of active ingredient per gallon.

**Keep Out of Reach
of Children**

**CAUTION
PRECAUCION**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

Refer to inside of label booklet for additional precautionary information including Personal Protective Equipment (PPE) and Directions for Use including Storage and Disposal.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to the label booklet under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

Notice: Read the entire label. Use only according to label directions. **Before using this product, read Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies at end of label booklet. If terms are unacceptable, return at once unopened.**

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994. If you wish to obtain additional product information, visit our web site at www.dowagro.com.

Agricultural Chemical: Do not ship or store with food, feeds, drugs or clothing.

Shake Well Before Using

EPA Reg. No. 62719-471

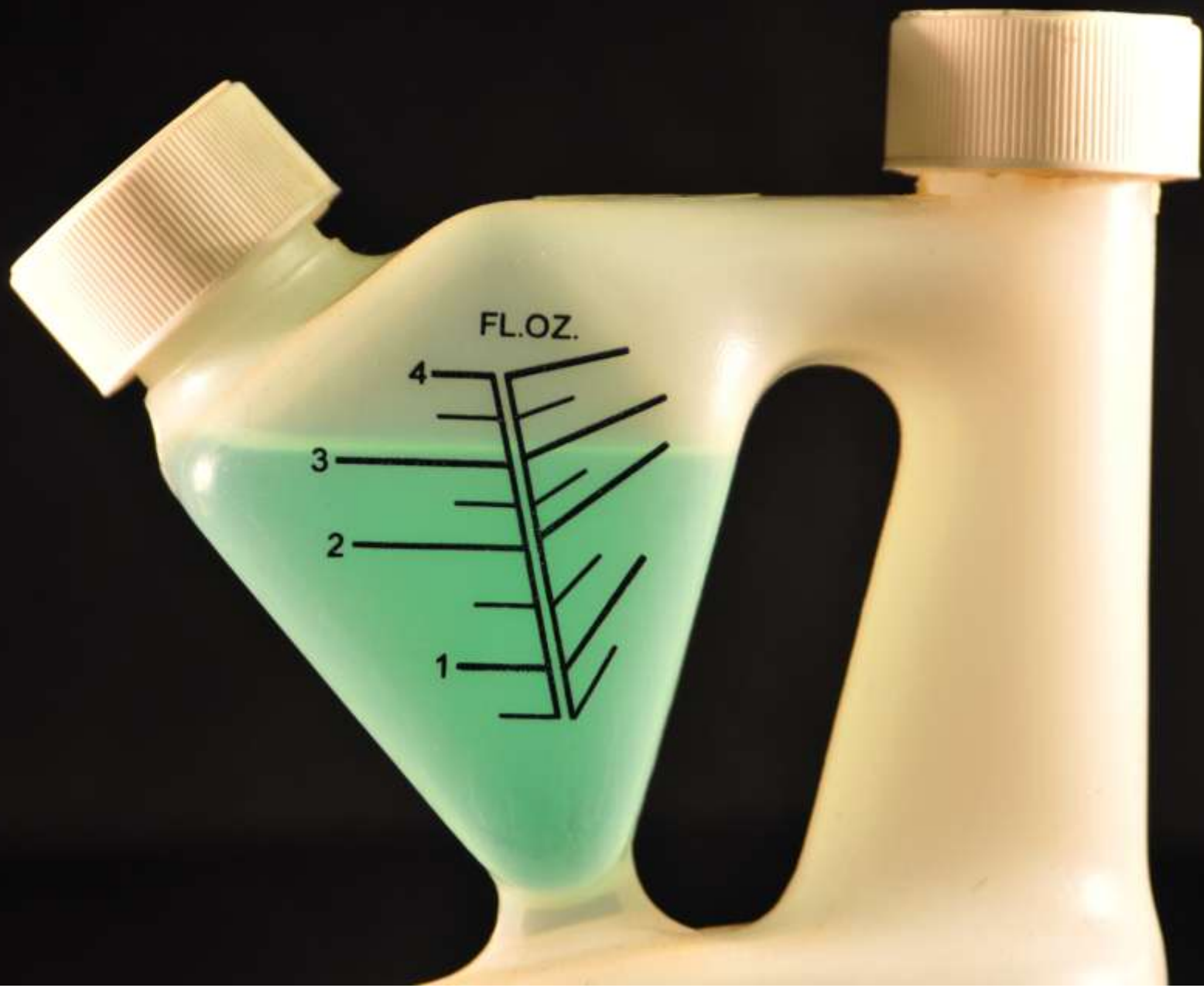
EPA Est. 5905-GA-01
900-009358 / 00197222

*Trademark of Dow AgroSciences LLC

**Dow AgroSciences LLC •
Indianapolis, IN 46268 U.S.A.**

Specialty Insecticide

Net Contents 2.5 gal



FL.OZ.

4

3

2

1

OUNCES

8

7

6

5

4

3

2

1

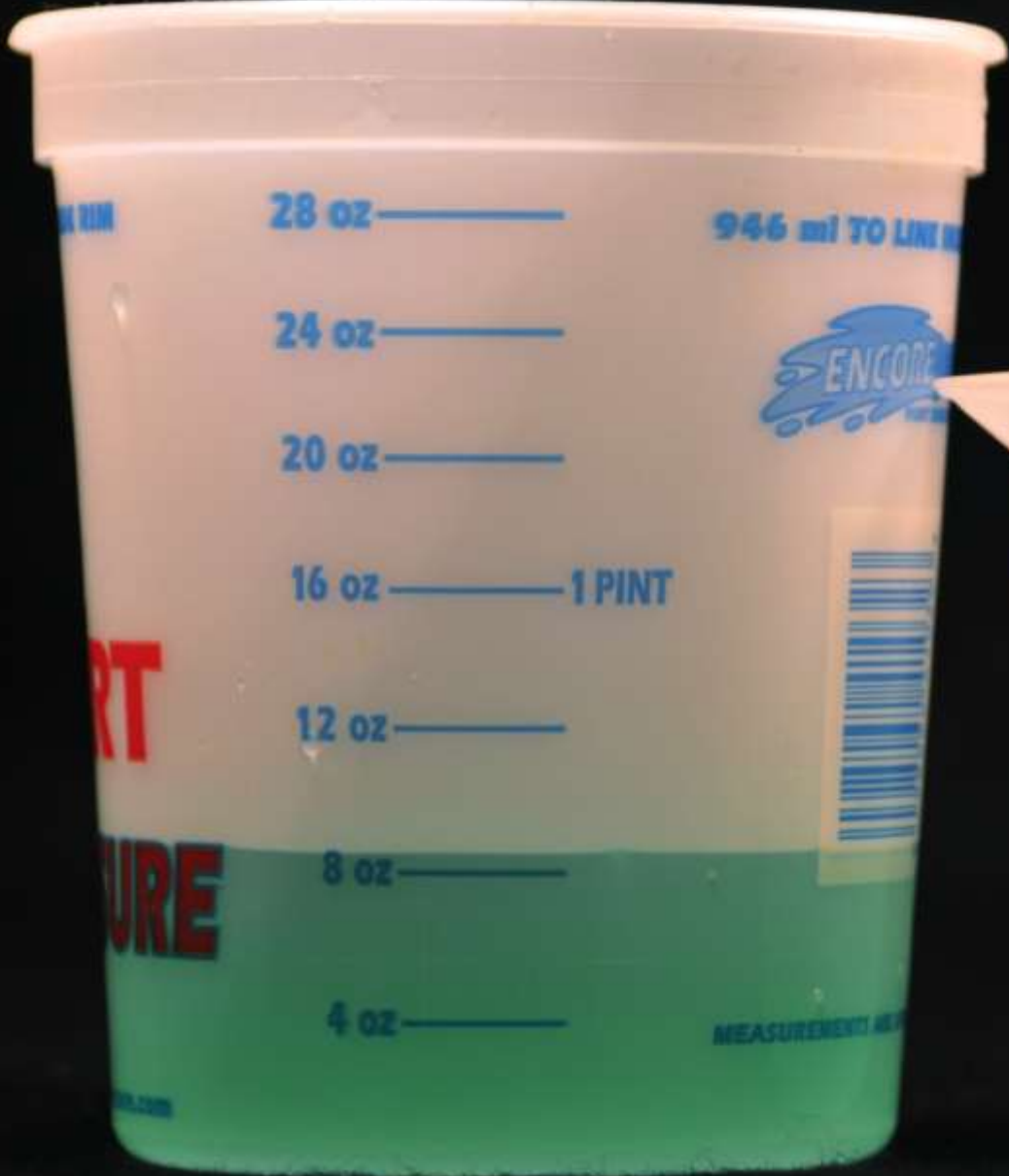
ENCORE
PAINT SUNDRY LEADERS



MEASUREMENTS ARE APPROXIMATE



237 milliliters = 8 ounces





11



10



U.S.
GALLONS

5.03

5.02

5.01

5.00

4.99

4.98

4.97

NO. 100018124

DEPOSITION AID, CANOPY PENETRATION AND DRIFT CONTROL
NONIONIC SURFACTANT AND PERFORMANCE AID
KEEP OUT OF REACH OF CHILDREN
WARNING
READ LABEL BEFORE USING

LOCK®

FLOWSERVE®

Scienco Products
Electronic Flow Meter • Non-Commercial •



CAL-1

TOTAL 2
CAL-2 ↓

RESET ↑
CAL-3

ON

SERVICE: 1-800-343-7867

Calibrate Before Use

(refer to Owner's Manual for complete instructions)

- To calibrate (1) Press 'ON' button to power-up meter. (2) Press CAL -1 button. (3) Dispense five units. (4) Press CAL-1 button to finish calibration.
- This unit for use only with liquids compatible with stainless steel, Ryton and polypropylene and Viton.
- Unit should be flushed out with water after use, especially if the chemical will leave a residue upon drying.
- This unit is not intended for resale use.

Form No. 8091

MSA
Safety Data Sheet
GHS07
GHS09
GHS05
GHS08
GHS06
GHS02
GHS03
GHS04
GHS01
GHS00

250 kg max
↓
During Transport

MSA
Safety Data Sheet
GHS07
GHS09
GHS05
GHS08
GHS06
GHS02
GHS03
GHS04
GHS01
GHS00

Roundup
POWER MAN

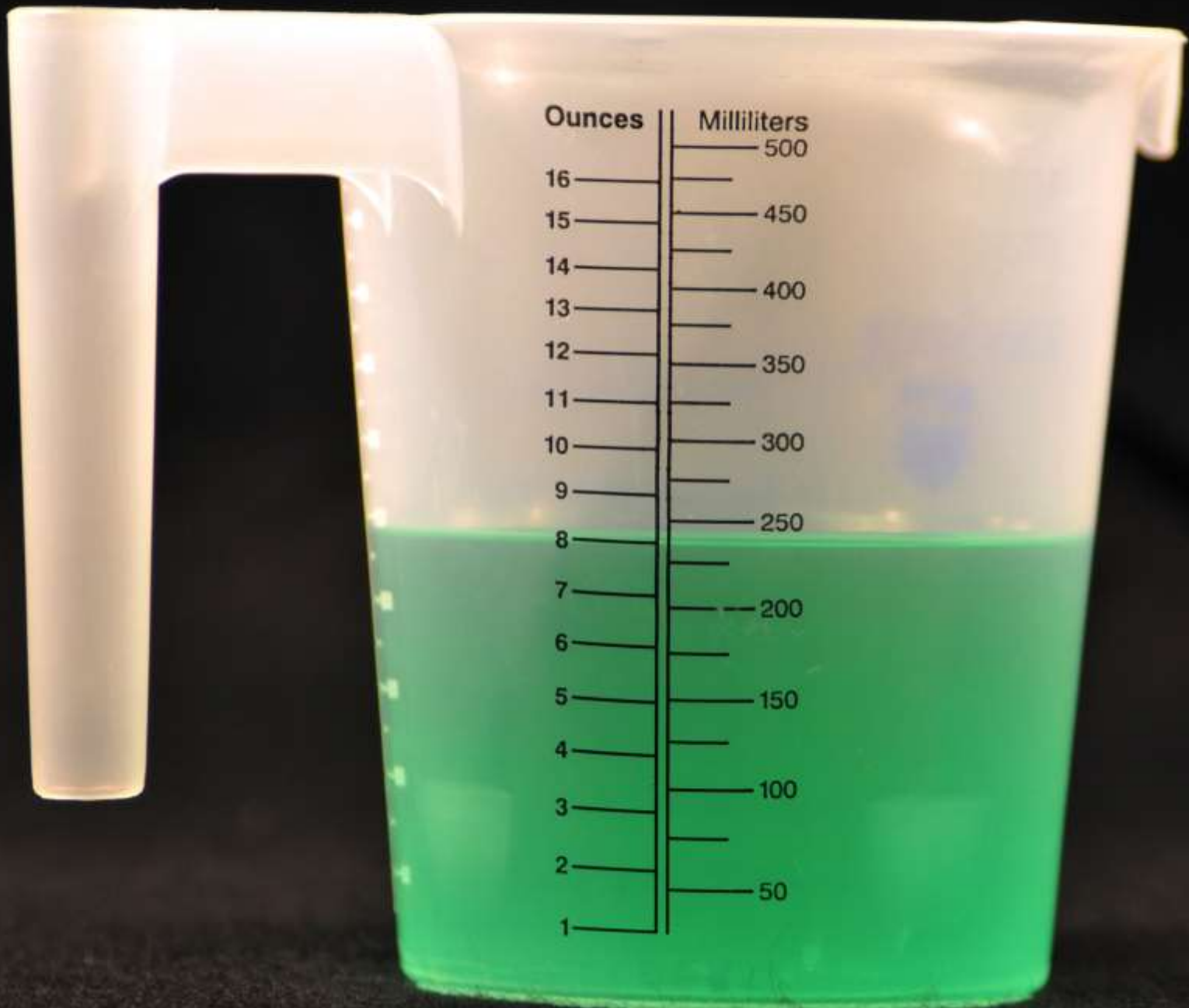
NET CONTENTS



318417100-11/USA/MS700-4452/2005
118701/6284/1706/03-11/03-11



MSA
Safety Data Sheet
GHS07
GHS09
GHS05
GHS08
GHS06
GHS02
GHS03
GHS04
GHS01
GHS00



Ounces

Milliliters

16

15

14

13

12

11

10

9

8

7

6

5

4

3

2

1

500

450

400

350

300

250

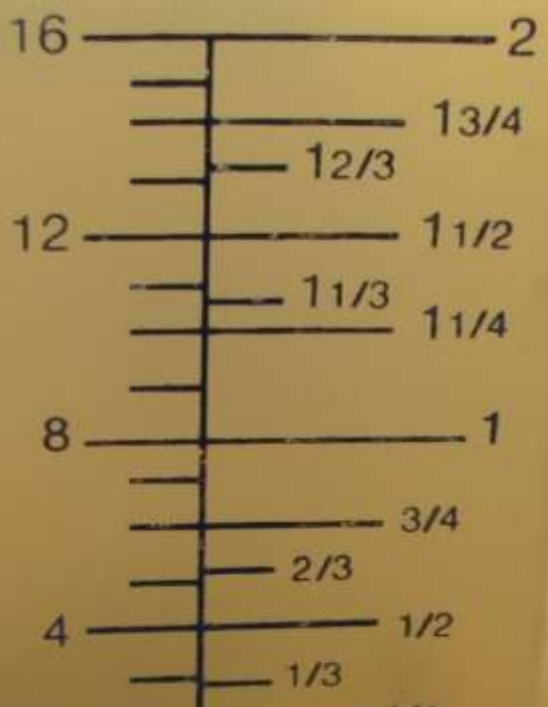
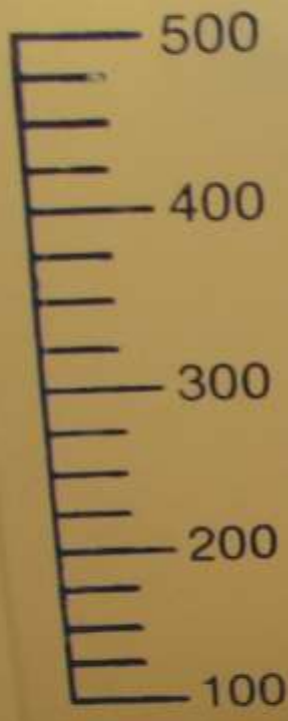
200

150

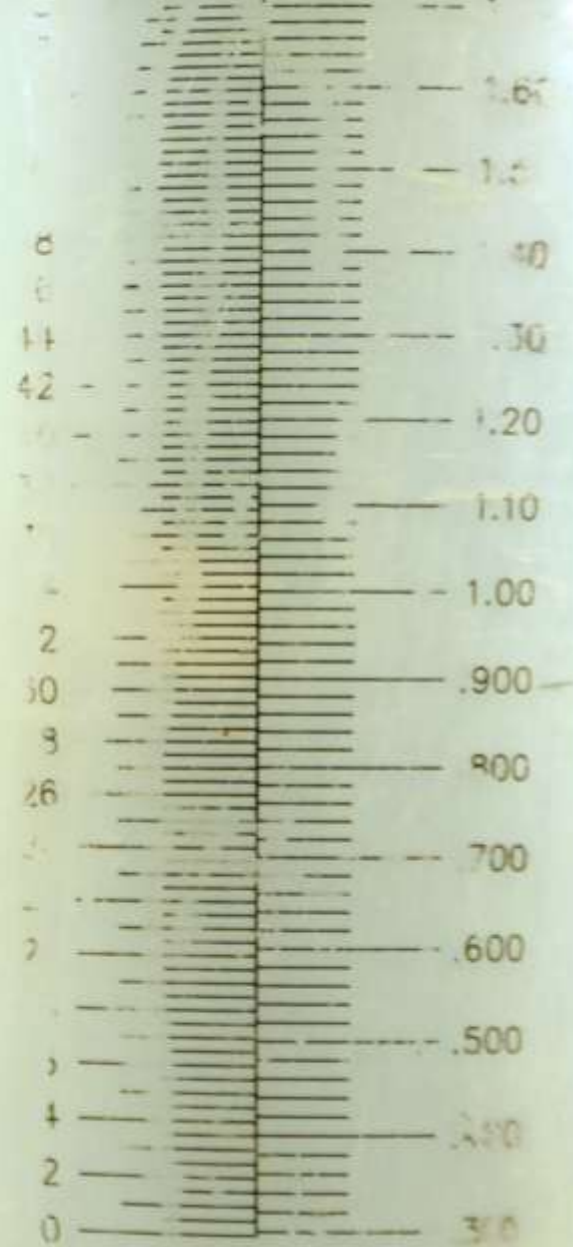
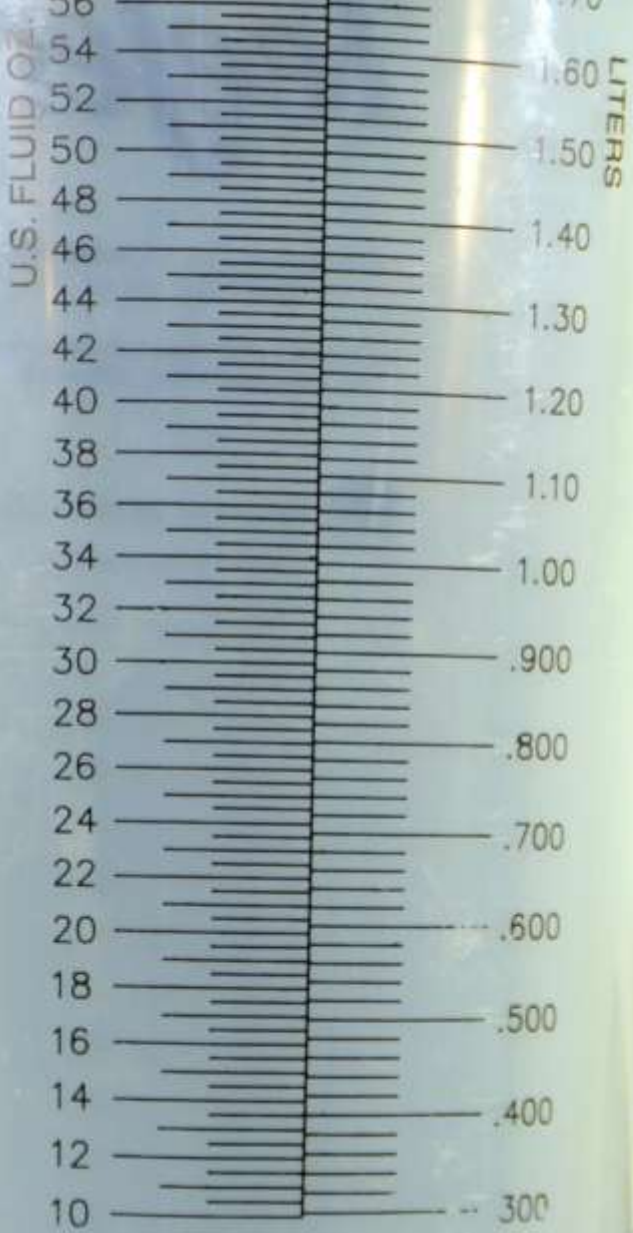
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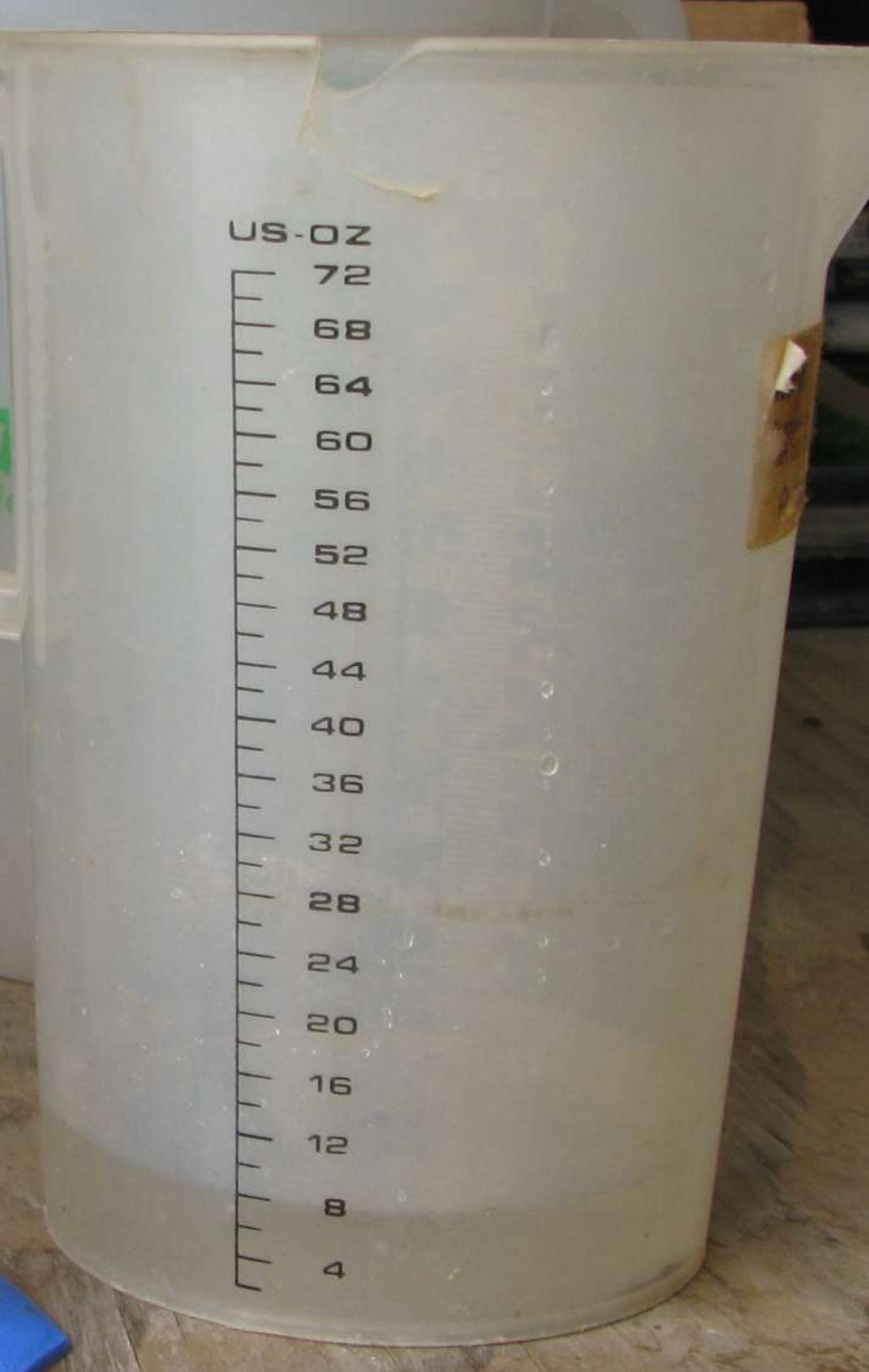
50





METRIC (ML) OZS. CUPS





Second Conclusion

- Make sure device is accurate

DRY OUNCES

The logo features a stylized, dark green 'Z' with a brushstroke texture. To its right, the word 'Ziram' is written in a bold, red, italicized sans-serif font. Below 'Ziram' is the word 'Fungicide' in a smaller, black, sans-serif font. To the right of 'Fungicide' is '76DF' in a large, bold, black, sans-serif font. A red swoosh underline is positioned below the 'Ziram' and 'Fungicide' text.

Ziram 76DF
Fungicide

ACTIVE INGREDIENT:		
Ziram (Zinc dimethyldithiocarbamate)	16.25%	76.0%
(Zinc expressed as metallic		
OTHER INGREDIENTS:		24.0%
TOTAL		100.0%

KEEP OUT OF REACH OF CHILDREN
DANGER

FLUID OUNCE VS. DRY OUNCE

- 3-oz table salt measured by volume



- 3-oz table salt measured by weight





8 liquid ounces of water



1.5 oz

3.0 oz

4.5 oz

Water Soluble
Granule



Tiny Baby's Growth a Christmas Miracle

Born weighing less than a soda can

■ **Updated: Thursday, 15 Dec 2011, 9:21 AM**

MST Published : Thursday, 15 Dec 2011, 9:21 AM MST

■ **PHOENIX - An amazing story of survival -- one of the world's smallest babies -- tipping in at only 9.5 ounces at birth -- is getting ready to head home. It's truly a Christmas miracle!**

■ **Baby Melinda was so tiny that she could fit in the palm of her doctor's hand. She weighed less than a can of Coke.**



BASF
Pest Control Solutions

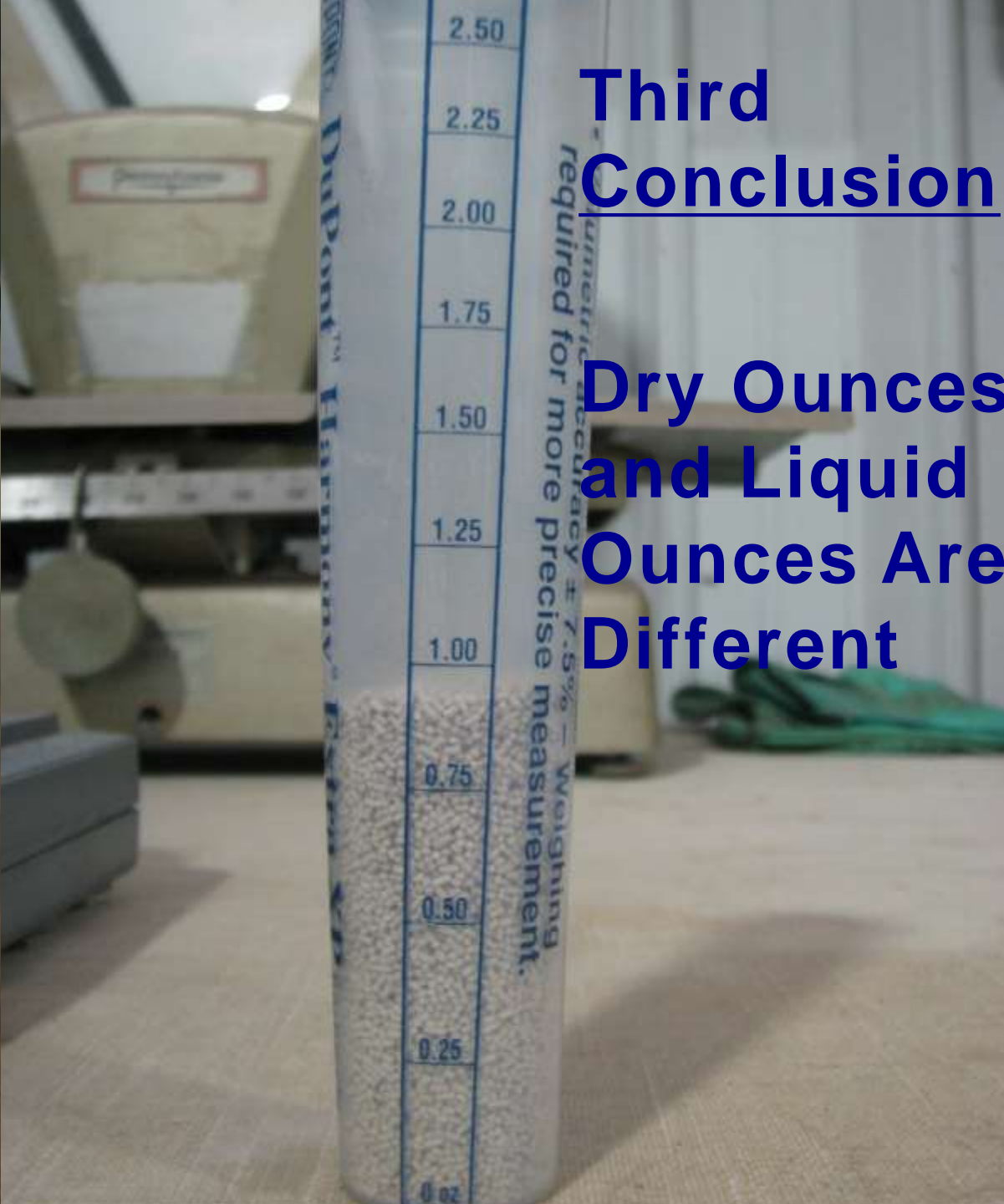
Pristine
herbicide

For use in berries, field vegetables, ornamentals, ground covers, lawns, turf, wheat, corn, soybeans and rice.

**KEEP OUT OF REACH OF CHILDREN
CAUTION/PRECAUCION**

Net contents: 6.25 pints





Third Conclusion

Dry Ounces and Liquid Ounces Are Different











DRY OUNCE



32 fl. oz. —
31 fl. oz. —
30 fl. oz. —
29 fl. oz. —
28 fl. oz. —
27 fl. oz. —
26 fl. oz. —
25 fl. oz. —
24 fl. oz. —
23 fl. oz. —
22 fl. oz. —
21 fl. oz. —
20 fl. oz. —
19 fl. oz. —
18 fl. oz. —
17 fl. oz. —
16 fl. oz. —
15 fl. oz. —
14 fl. oz. —
13 fl. oz. —
12 fl. oz. —
11 fl. oz. —
10 fl. oz. —
9 fl. oz. —
8 fl. oz. —
7 fl. oz. —
6 fl. oz. —



—16 oz—

—15 oz—



—14 oz—

—13 oz—

—12 oz—

—11 oz—

—10 oz—

—9 oz—

—8 oz—

—7 oz—

—6 oz—

—5 oz—

—4 oz—

VAS
SX

Measuring
Herbicide

Volumetric

Weigh scale

Made in
Form 1467

24 oz. —

23 oz. —

22 oz. —

21 oz. —

20 oz. —

19 oz. —

18 oz. —

17 oz. —

16 oz. —

15 oz. —



14 oz. —

13 oz. —

12 oz. —

11 oz. —

10 oz. —

9 oz. —

8 oz. —

7 oz. —

6 oz. —

5 oz. —

4 oz. —

What are the consequences of using the wrong measuring tube?

- Measuring guide to be used with DuPont™ Arllon™ insecticide.
- Dispose of guide after use; not to be used for other products.
- Measurement will indicate the number of gallons the product will yield once mixed with water.
- Volumetric accuracy $\pm 7.5\%$ – Weighing required for more precise measurement.

A01474023







Turf Containty
TURF HERBICIDE

This herbicide is a selective herbicide for control of
perennial grass and broadleaf weeds
in highly managed turf sites.

See detailed instructions in label pamphlet.

NET 1.25 OZ



Children
 ents
 and
CAUTION
 que a alguien para que
 you do not understand
 to you in detail.)
 inhaled
 spray mist, and contact
Equipment (PPE)
 ust wear:
 or cleaning/maintaining
 shables, use detergent and
 erately from other laundry.

Do not contaminate water when disposing of equipment washwaters. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Drift may result in reduced germination or emergence of non-target plants adjacent to treated area.

Directions for Use

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all Directions for Use carefully before applying.

NOTICE: The container cap for Gallery® T & V herbicide may be used to measure the amount of product required to treat small areas. When filled to the level of the inner lip, the cap contains approximately 1/2 ounce which is the amount of Gallery T & V needed to treat an area of 1,000 square feet. Please refer to label booklet for complete use directions and precautions.



When filled to this level, container cap contains 1/2 oz (14 grams) of Gallery T & V.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.



Fourth Conclusion

Use the measuring device that comes with dry materials

USE ONLY TO MEASURE



DuPont™

Streamline™

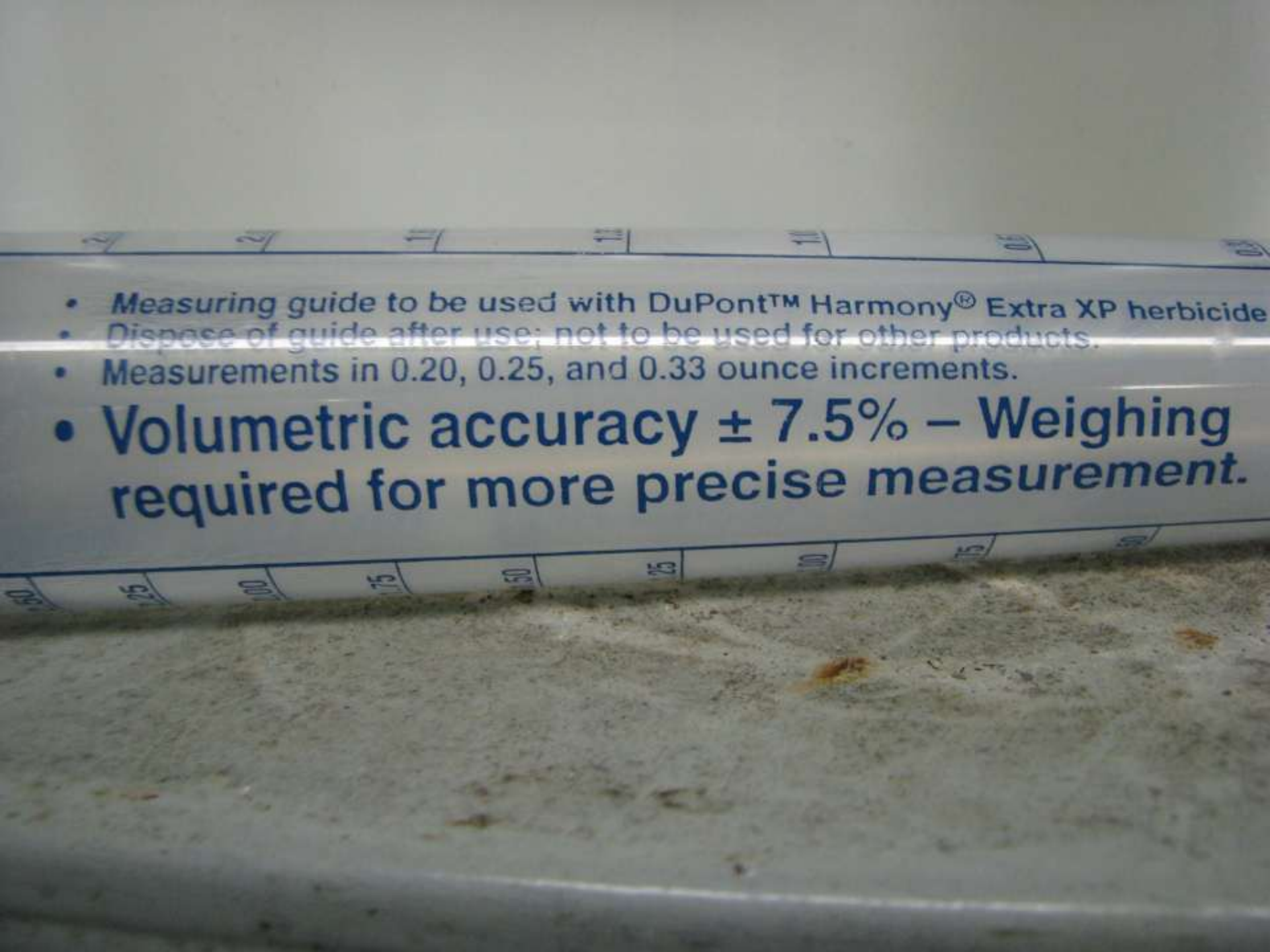
herbicide

This volumetric guide provides a reasonably accurate measurement of weight but where a high degree of accuracy is required, the material should be weighed.

Do not use the measuring guide for products other than DuPont™ Streamline™ herbicide.

E. I. du Pont de Nemours and Company, Wilmington, DE 19898
A01402903

Do You Want Convenience or Accuracy?

- 
- A white measuring guide with a scale and text instructions. The scale is printed in blue ink and shows increments of 0.25, 0.50, 0.75, 1.00, 1.25, 1.50, 1.75, 2.00, 2.25, 2.50, 2.75, 3.00, 3.25, 3.50, 3.75, 4.00, 4.25, 4.50, 4.75, 5.00. The text is printed in blue ink and includes the following instructions:
- *Measuring guide to be used with DuPont™ Harmony® Extra XP herbicide*
 - *Dispose of guide after use; not to be used for other products.*
 - *Measurements in 0.20, 0.25, and 0.33 ounce increments.*
 - **Volumetric accuracy $\pm 7.5\%$ – Weighing required for more precise measurement.**

Opensight™

Specialty Herbicide

This volumetric device provides reasonably accurate measurement of weight (+/-10%). Where a high degree of accuracy is needed, the material should be weighed.

™Trademark of Dow AgroSciences LLC

V00-372-003 010-50780

900-016003 / 00336561



ClipperTM

H E R B I C I D E

Measuring guide for
ClipperTM Herbicide.

Volumetric accuracy $\pm 15\%$.

Weigh scales required for
more precise measurement.

Dispose of after use.

Not for use with other products.

Use only for measuring SCEPTER® herbicide.
Level off at desired weight, rinse thoroughly after use. This volumetric
device provides a reasonably accurate measurement of weight (+/- 20%).
Where a high degree of accuracy is needed a scale should be used.

herbicide





Don't remark tubes!
Don't weigh liquids!



Fifth Conclusion

Devices not very accurate. Weighing out material will get you the most accurate measurement.

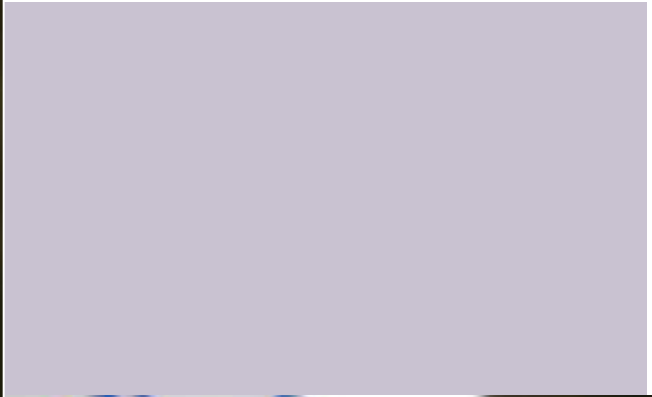




Sixth Conclusion

- Throw away the measuring device after your supply has run out.





Tank Agitation





17 3:34 PM











Franco Landscaping
258



Seventh Conclusion

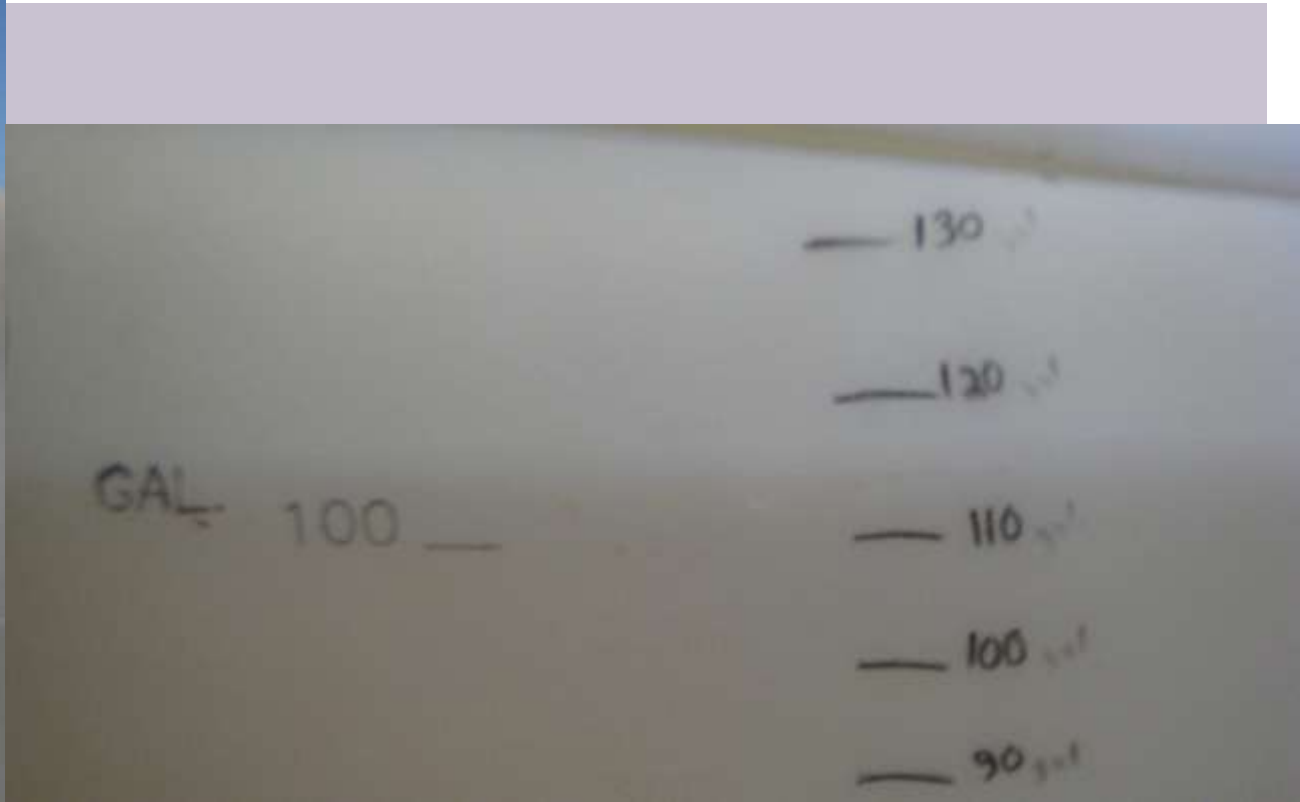
Keep the dry
product agitated
in the spray tank

You might have to
premix if water is
really cold

VERIFYING TANK MEASUREMENTS



VERIFYING TANK MEASUREMENTS





SOTERA
SYSTEMS

NOT
FOR
RETAIL
USE

10.00

MODEL
800
METER

TO ACTIVATE A FUNCTION PRESS BUTTON FOR 4 SECONDS

POWER SOURCE
ON

RESET TO
2

SCALE CALLS
3

WEIGHT IN
4



TUTTHILL
CORPORATION

Sotera
Systems

20

APROW
1 quart/10









**Accurate
Measurement Starts
the Chain of Events to
Success or Failure**

**More precision for
ounce
measurement**

**Dry and liquid
ounces are
different**

**Single liquid
ounce units on
measuring
devices**

**Use specific tubes
made for dry
products**

**Weigh dry
products for
accuracy**



**Throw away
dry measuring
tubes**

**Ask retailer for
dry tube that
came with
product**

**Keep dry
products well
agitated**

**Make sure
spray tank is
accurately
marked**

**A Little Inaccuracy,
Perhaps a Ton of
Explanation**