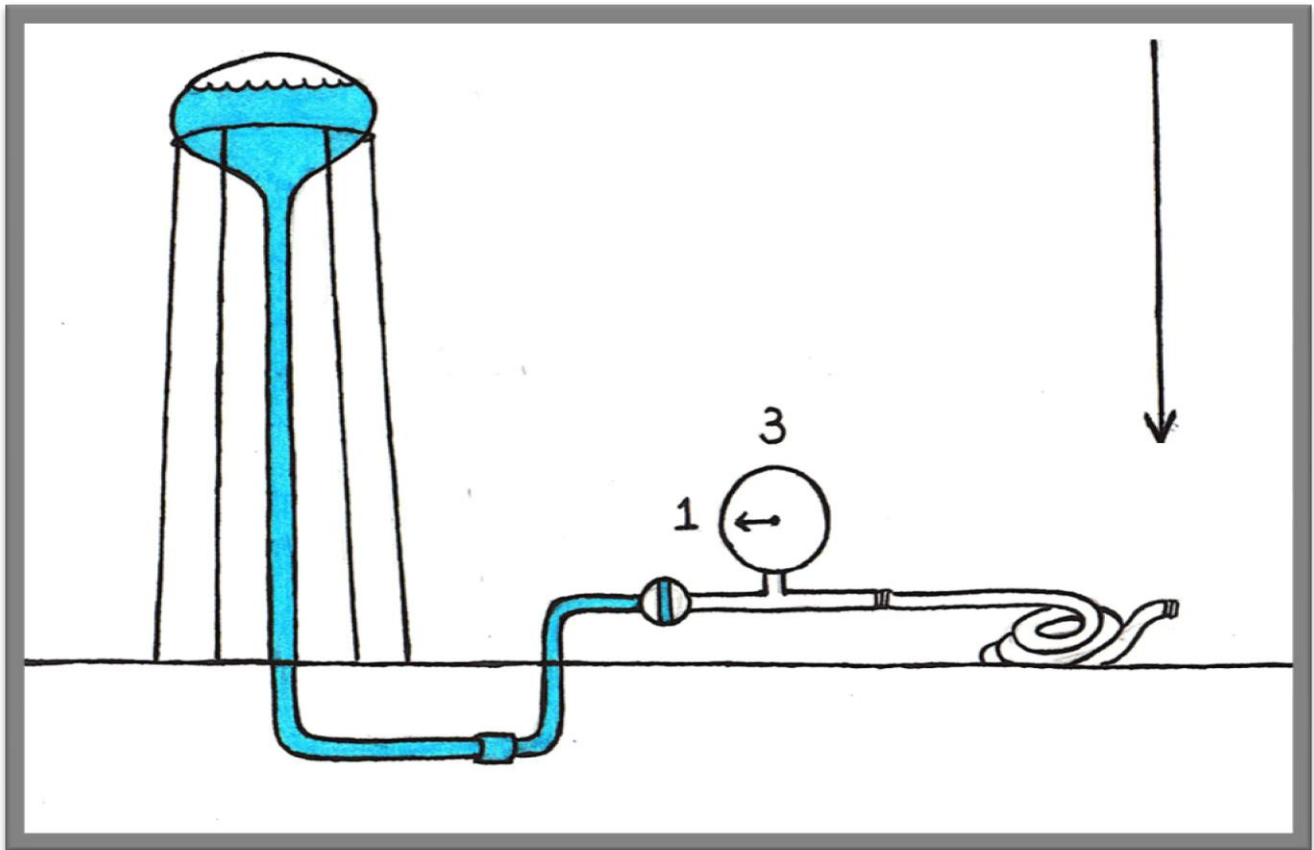


## Series PRS: Visual Training Aids<sup>1</sup>

### Pressure Rinsing for Smaller Containers

**PRS-01:** *Pressure rinsing equipment uses water pressure (typically 3 Bar)<sup>2</sup>* and some special equipment to provide an equivalent method to triple rinsing pesticide or other crop protection containers.

**What is 3 Bar?**



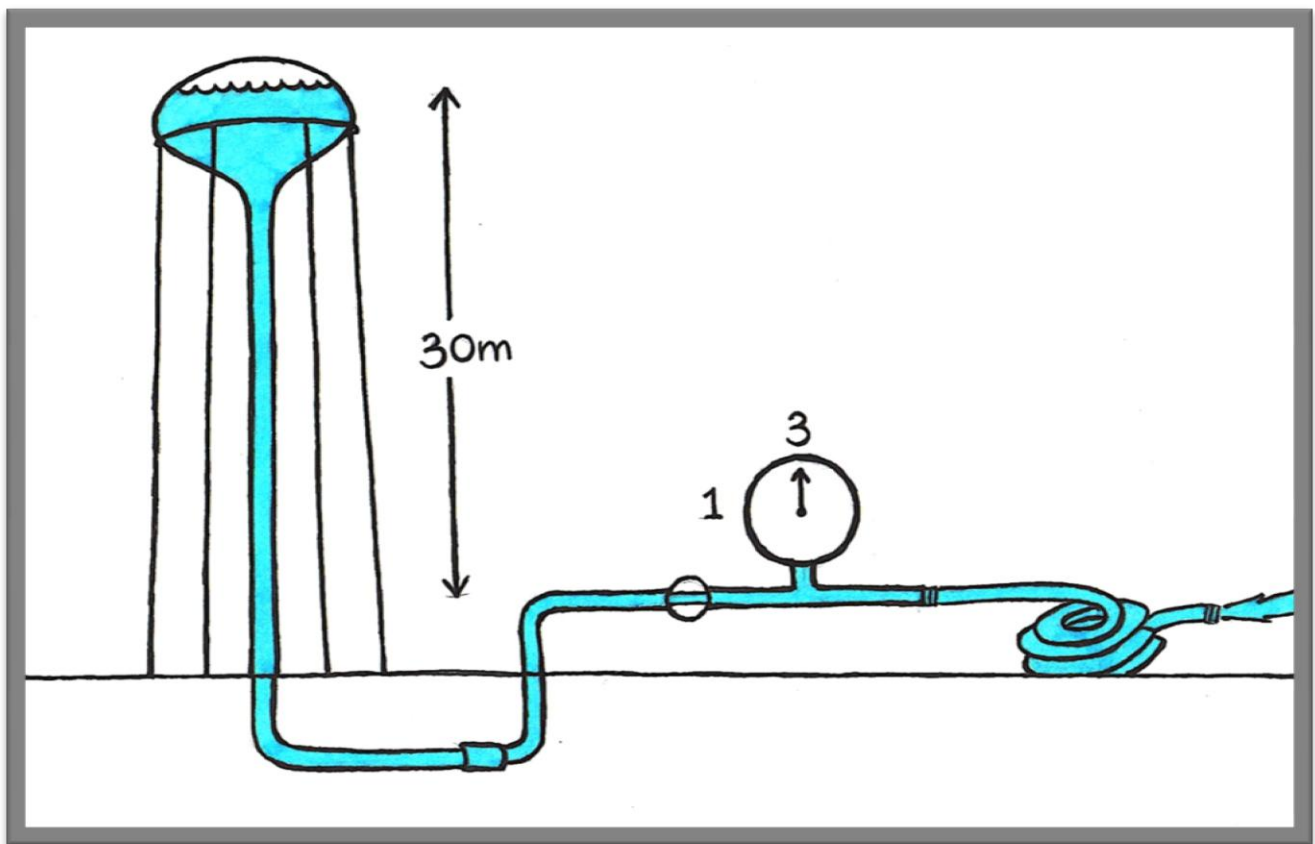
When the atmosphere presses down on the earth at sea level, this is 1 (one) Bar.

<sup>1</sup> These images are not intended to stand alone in training applicators, but are to serve only as an aid to training or refresher for the trained user. Critical information is omitted from these brief visual cues.

<sup>2</sup> All *italics* are direct quotations from "Guidelines on Management Options for Empty Pesticide Containers" FAO, Rome 2008

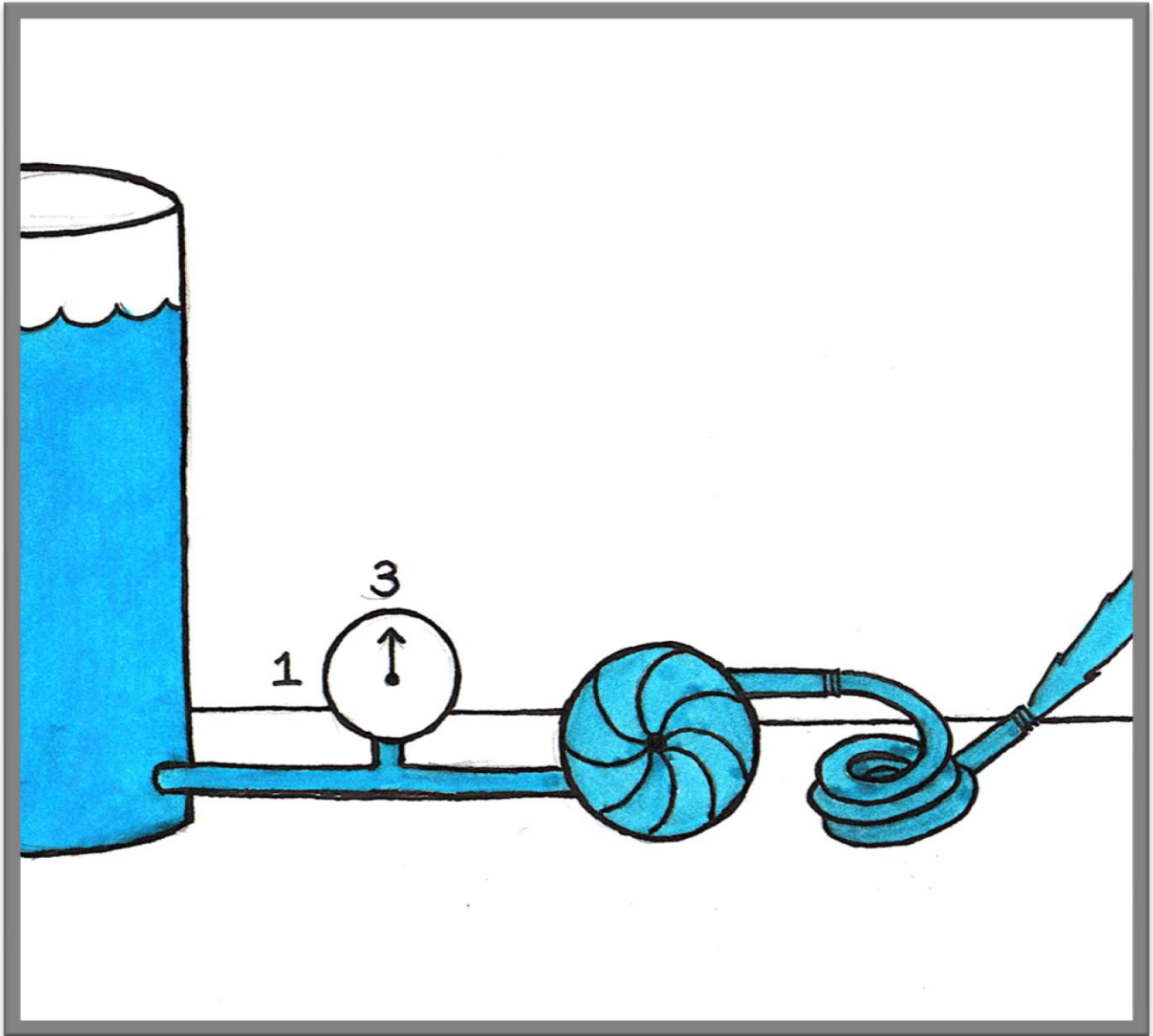
PRS-02: Sufficient water pressure for rinsing pesticide containers *can* be achieved by raising the elevation of the water source on a tower or hill to 30 meters<sup>3</sup>...

3 bar = 43.5 psi = good public water system pressure

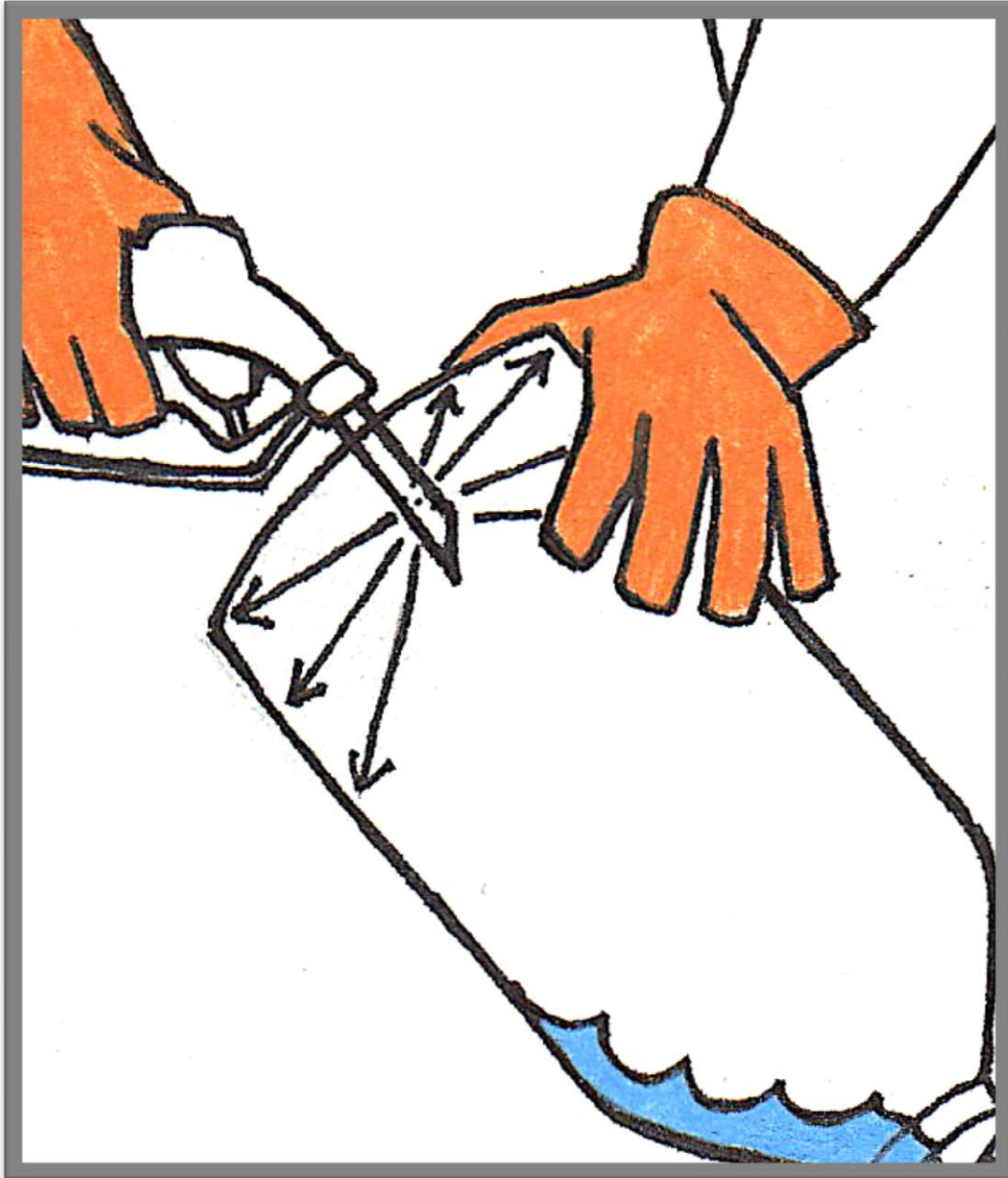


<sup>3</sup> Precise delivery of 3 Bar depends on elevation from sea level and other small variables, but 30 meters elevation is a good approximation for delivery of 3 Bar.

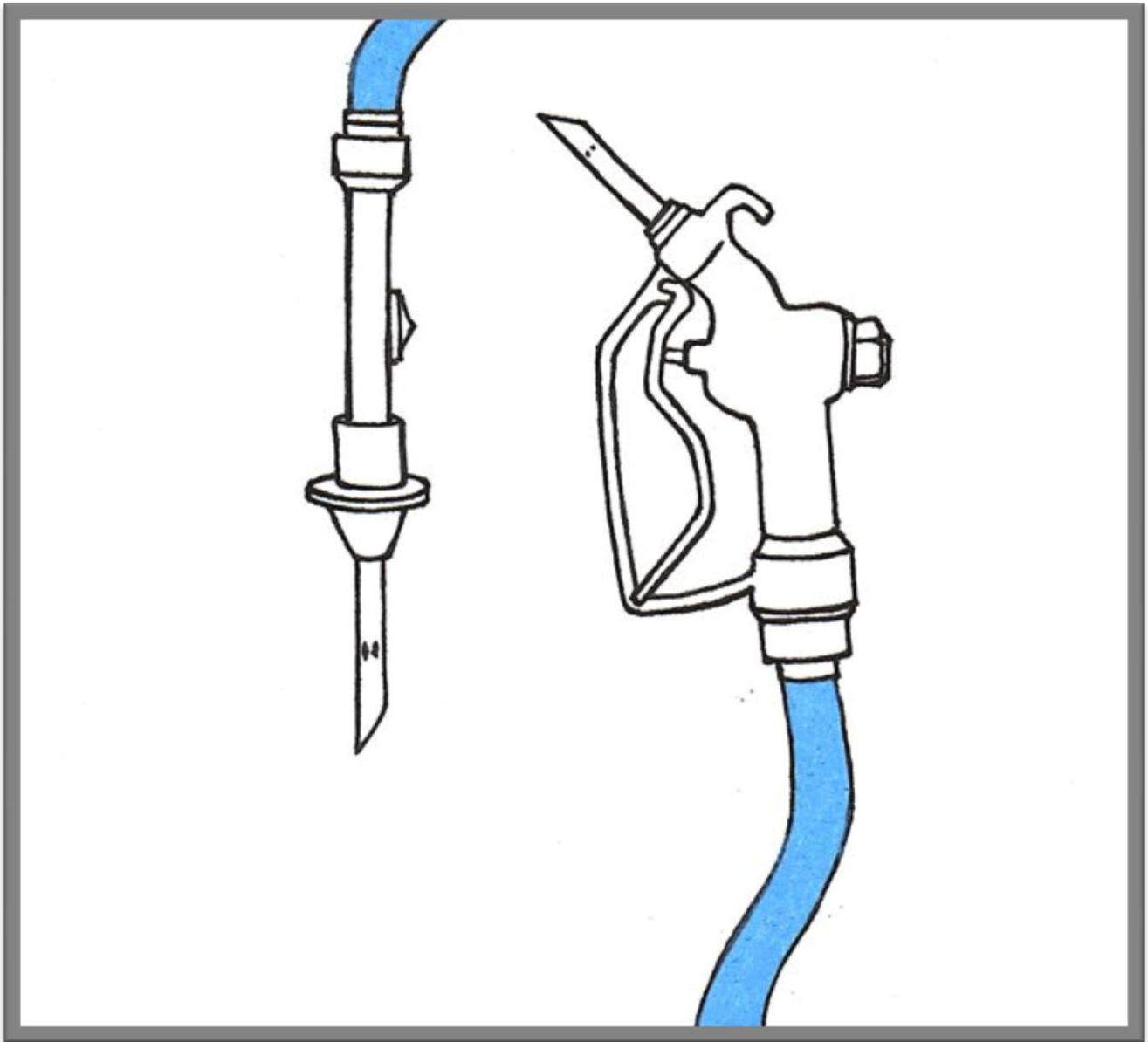
PRS-03: When an elevated water source is unavailable, a pump can generate the same water pressure.



**PRS-04:** The second article of equipment necessary for pressure rinsing takes the *form of a static or rotating spray jet of water*. *The jets of water hit the internal surfaces of the container removing and dissolving the pesticides residue.*



**PRS-05:** *Some pressure rinsing equipment includes a sharp device that penetrates the container walls for rinsing purposes, thereby offering the additional advantage of making the container unusable...*

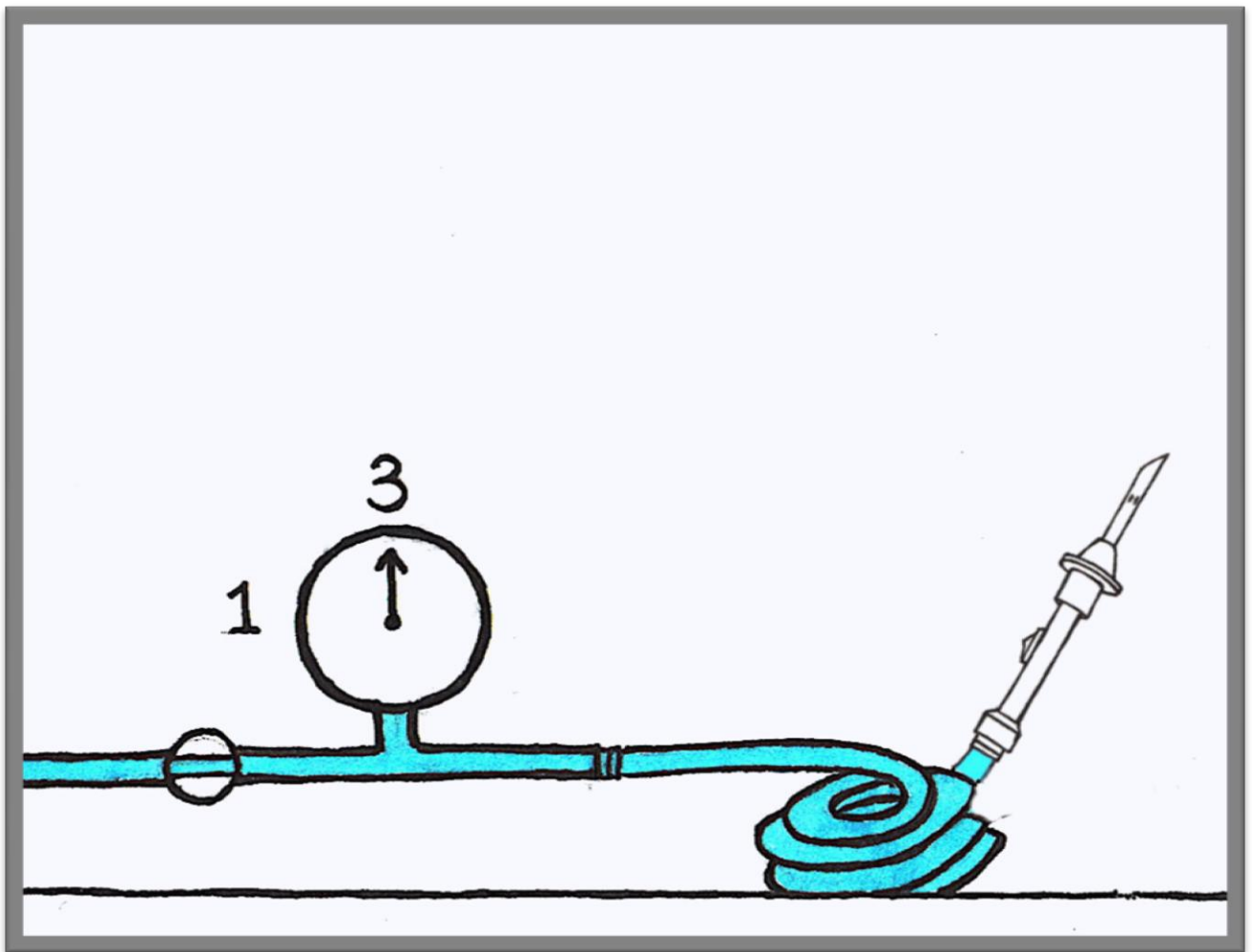


## Procedure for Use: Pressure Rinser

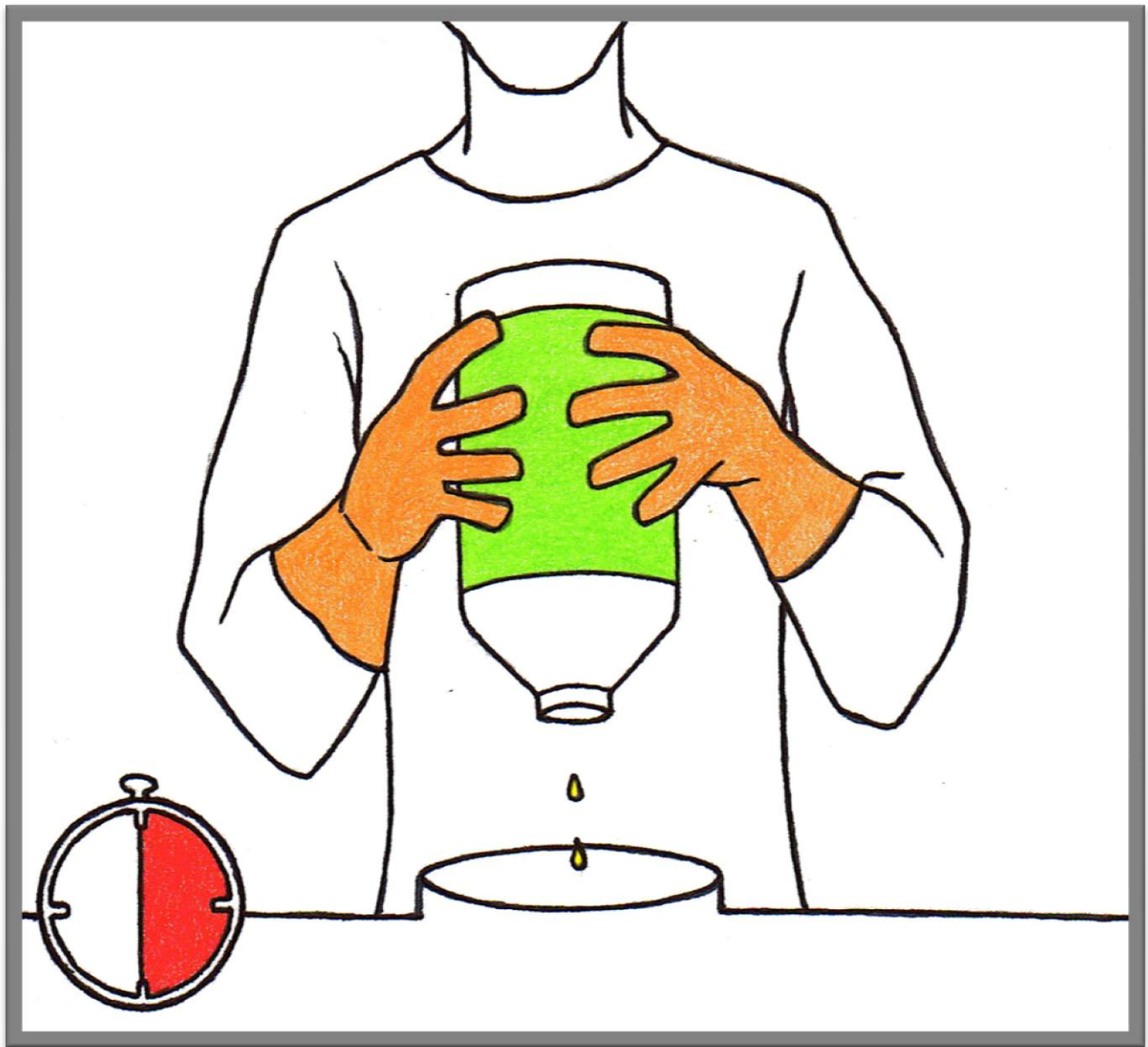
**PRS-06:** *Put on the personal protective equipment listed on the product's label.*



**PRS-07: Install pressure-rinse nozzle on hose connected to a water supply capable of delivering  
3 Bar of water pressure**



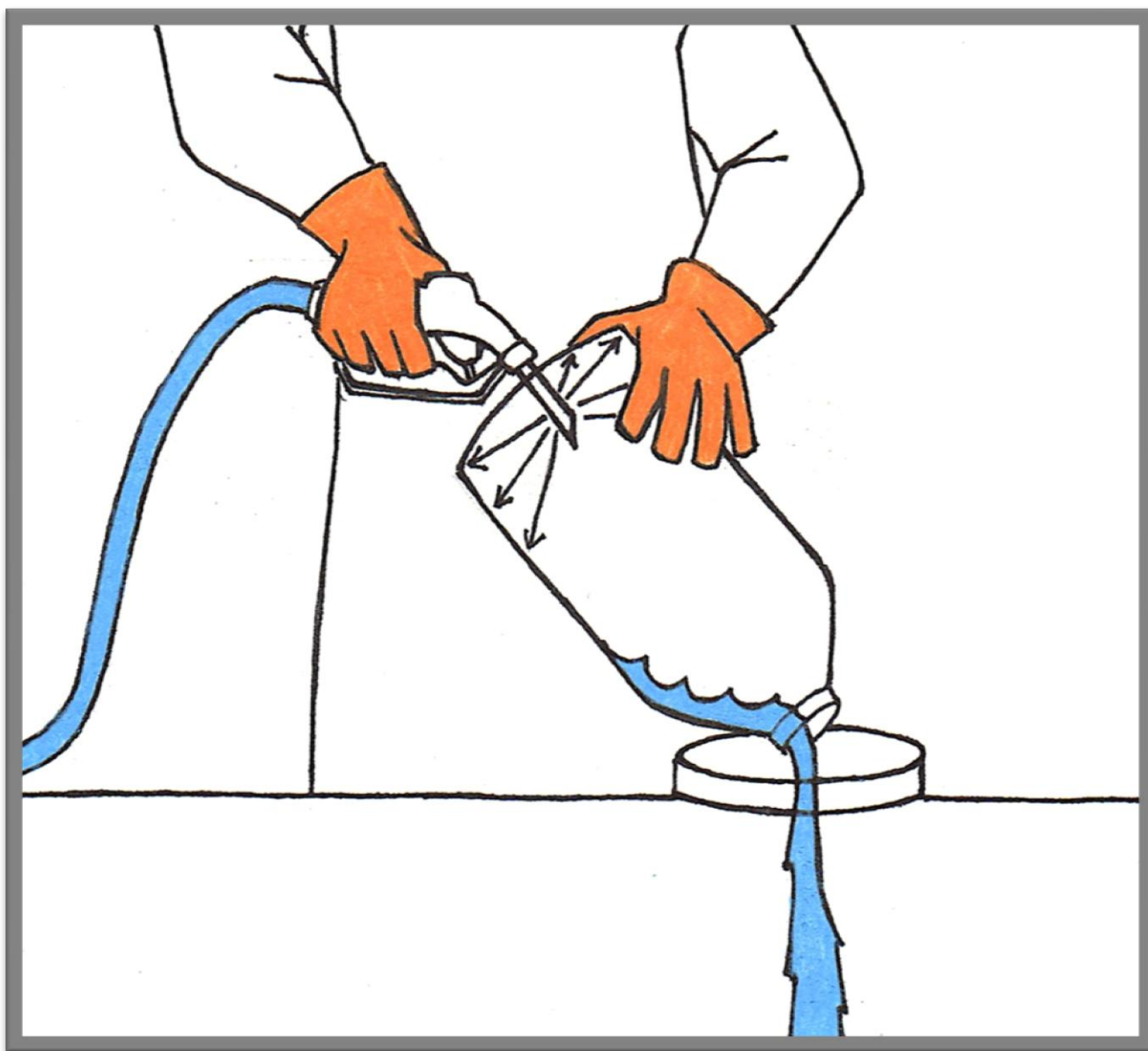
**PRS-08: Allow formulation to drip-drain from its container into the sprayer's tank for at least 30 seconds.<sup>4</sup>**



<sup>4</sup> No one uses a stopwatch to time drips in the field, but the idea of training is to find some mechanism, a watch or counting, to emphasize the importance of removing most of the concentrated product prior to rinsing. The end result of a properly rinsed, “safe to recycle” container depends on each trainee gaining an appreciation of what 30 seconds of dripping looks and feels like.

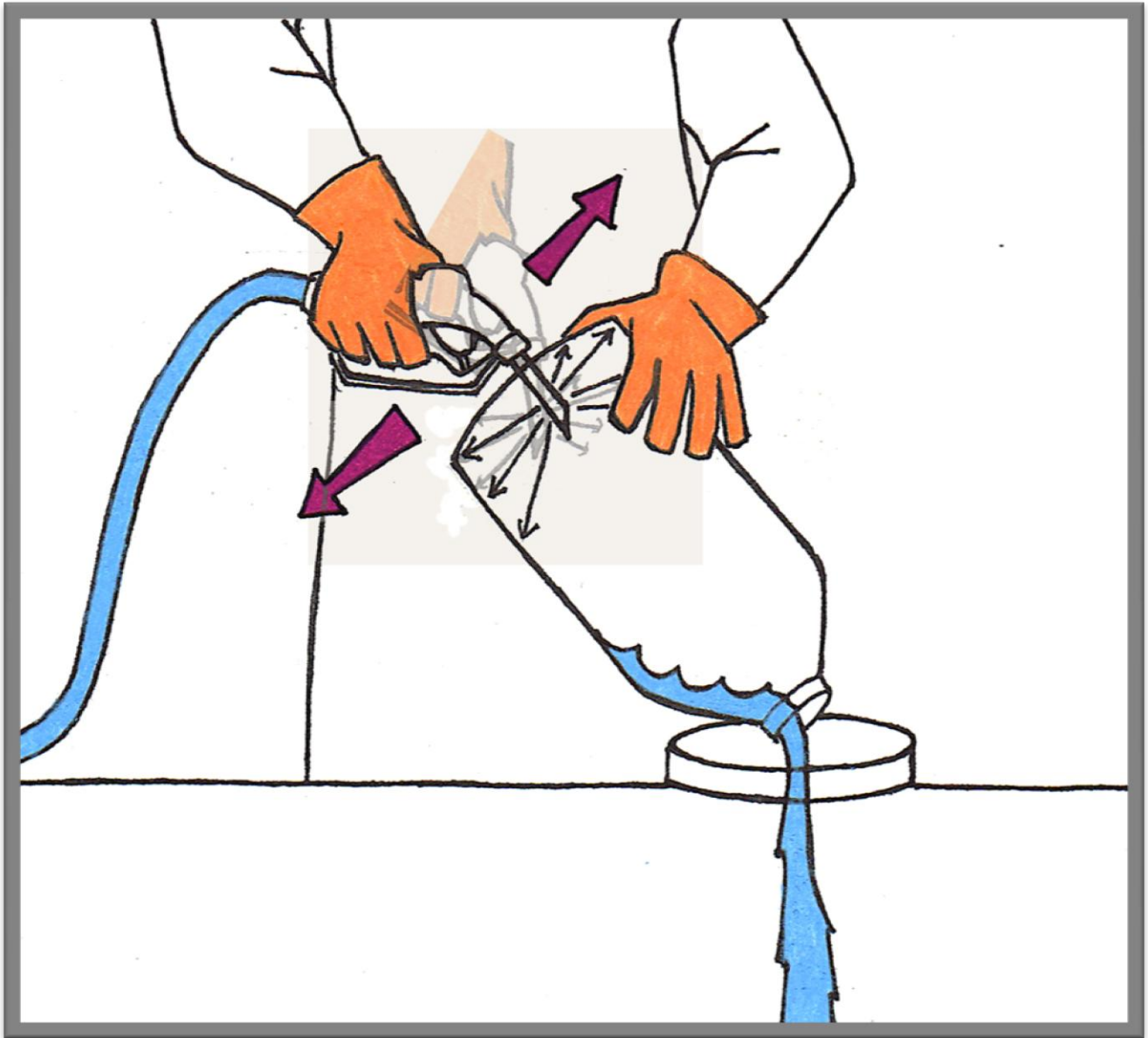


**PRS-09: Firmly press the pressure-rinse nozzle tip into the side or bottom of the pesticide container until the probe is inserted and seated, then turn on and rinse the container for at least 30 seconds with it draining into the sprayer's tank.<sup>5</sup>**

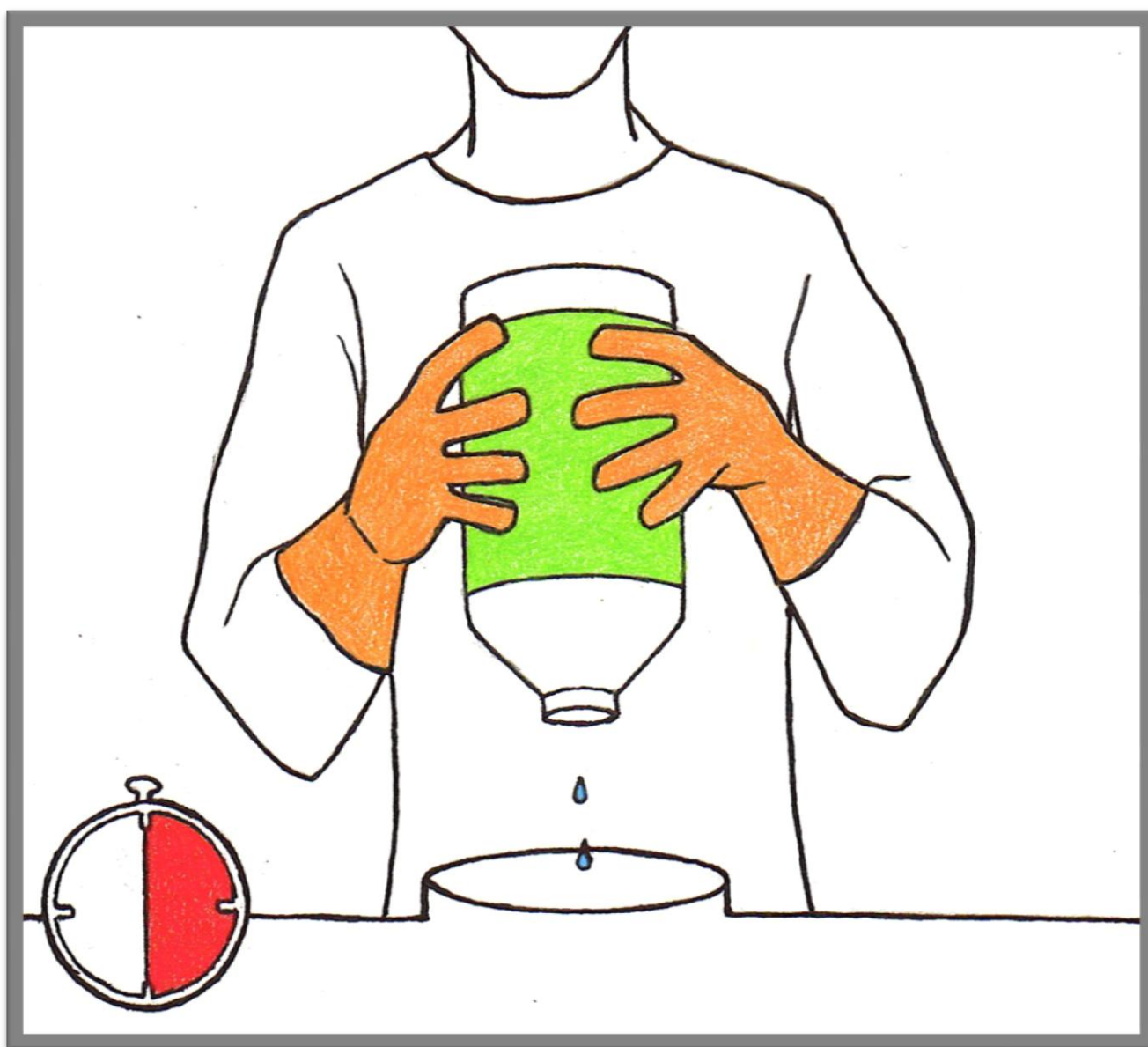


<sup>5</sup> This drawing follows the orientation of inserting the pressure rinse nozzle into the bottom of the container as depicted in the FAO Guidance. The most exhaustive study done to date however, indicates that the most effective position for inserting the probe is on the side of the container nearer the bottom crease rather than the middle. This promotes forceful removal of the two most prone areas for residue accumulation in a stored pesticide: the bottom and the meniscus at the top of the formulation. This side insertion is particularly important when hollow handles are present. In this instance the probe should be inserted likewise nearer the bottom than the middle, but definitely on the side of the container where the hollow handle is situated.

**PRS-10: During the rinsing, rock and rotate the nozzle so that the water jets reach all internal surfaces of the container. Make sure hollow handles (if any) are properly rinsed.**



**PRS-11: Allow the container to drip drain for at least 30 seconds.**



PRS-12: *Rinse the caps.<sup>6</sup> Add (any rinse) water to the spray tank. Dispose of in trash or recycle.<sup>78</sup>*

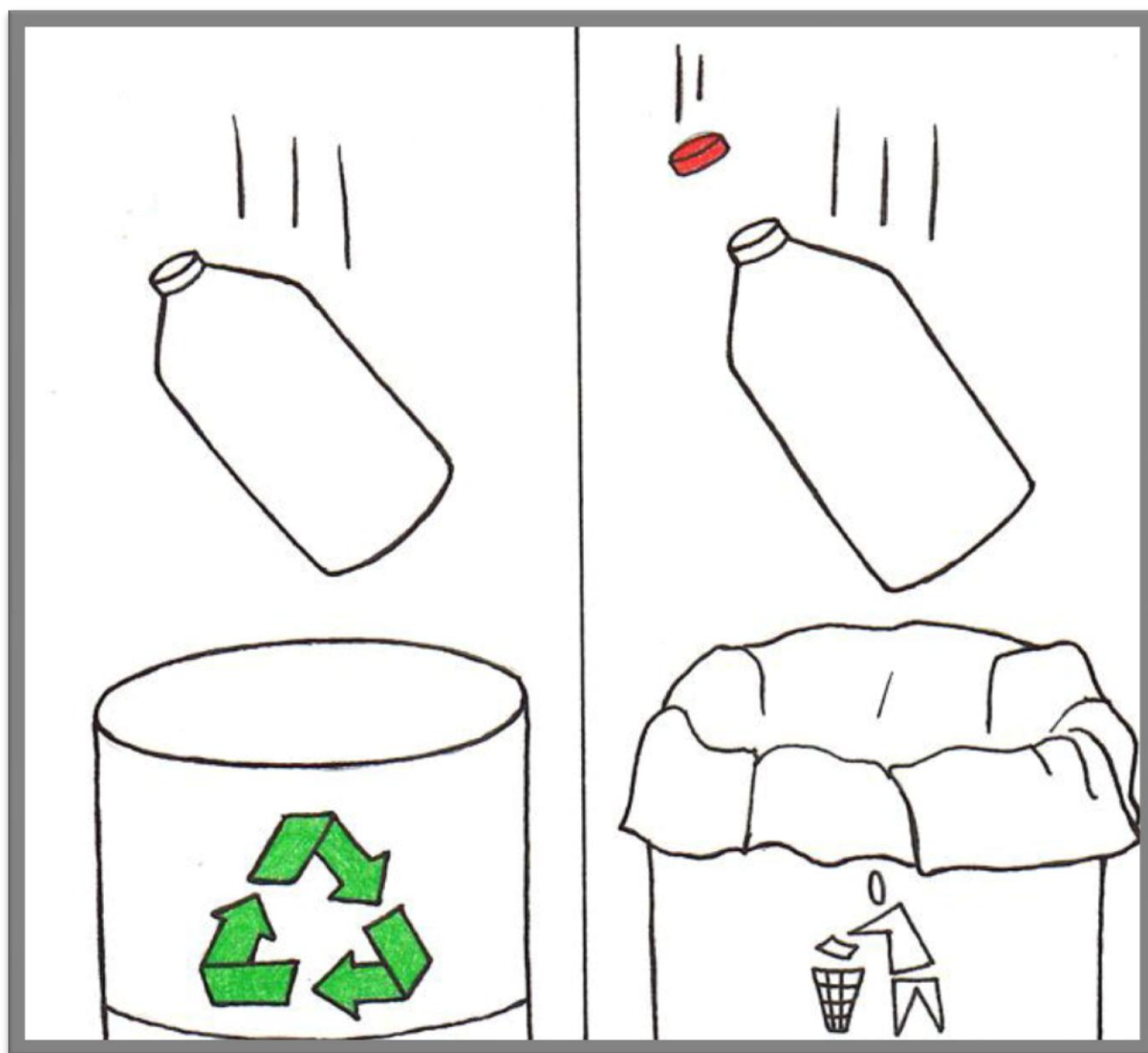


<sup>6</sup> The FAO Guidance recommends placing the caps in a bucket of water for 3 minutes.

<sup>7</sup> Language from triple rinse series.

<sup>8</sup> Using a proper pressure rinse nozzle with puncturing probe should prevent container reuse. In some instances, additional cuts or punctures may be required to prevent reuse of any part of the container.

PRS-12A:<sup>9</sup> *Rinse the caps.*<sup>10</sup> *Add (any rinse) water to the spray tank. Dispose of in trash or recycle.*<sup>1112</sup>



<sup>9</sup> Alternate Slide: Many recyclers do not accept product caps, although this FAO series did call for placing the caps back on the container, presumably for either recycling or disposal. Trainers should familiarize themselves with the local recycling requirements. If not recycled, caps must be properly disposed.

<sup>10</sup> The FAO Guidance recommends placing the caps in a bucket of water for 3 minutes.

<sup>11</sup> Language from triple rinse series.

<sup>12</sup> Using a proper pressure rinse nozzle with puncturing probe should prevent container reuse. In some instances, additional cuts or punctures may be required to prevent reuse of any part of the container.