

Section 4.2

Medicated Water

REFERENCED IN THIS SECTION:

Number/ Identifier	Name	Importance
Introduction	Vaccine and Drug Use Policy	–
	STANDARD OPERATING PROCEDURE	
4.2	Medicated Water	Mandatory
	RECORDS	
R-1	Verification Record	
R-4	Monitoring Record	
R-B	Training Record	Mandatory
R-P	Medication and Vaccine Usage Plan	
R-T	Treatment Record	
R-X	Calibration Record	
R-2	Incident Report	
R-3	Corrective Action Request Veterinary Prescription	Mandatory, if applicable
R-U	Emergency Contact List	Highly recommended
	FACT SHEET	
F-4	Water Medicator Calibration	–

SECTION 4.2

MEDICATED WATER



THIS SECTION APPLIES ONLY TO SITES USING MEDICATED WATER SINCE THE LAST VALIDATION.

REQUIREMENTS

1. A medication or vaccine administered through drinking water must be entered in the Treatment Record (R-T). The Treatment Record (R-T) must include:
 - a. treatment start date
 - b. treatment end date
 - c. animal, pen, room numbers (IDs)
 - d. number of animals treated
 - e. weight of animals treated
 - f. product name
 - g. dosage (Highly Recommended)
 - h. amount given per animal
 - i. withdrawal period (days)
 - j. safe shipping date
 - k. whether any broken needles are present
 - l. the initials of designated personnel.
2. A medication or vaccine administered through drinking water must be entered in the Medication and Vaccine Usage Plan Record (R-P). This record must include:
 - a. a list of all injectable, oral, topical and water-administered medications and vaccines used during the last 12 months
 - b. the product names
 - c. the drug identification numbers (DINs) or CFIA numbers for autogenous vaccines (unless a prescription is available)
 - d. an indication whether prescriptions are available and up to date
 - e. the reasons for product usage
 - f. the dosages
 - g. the methods of administration
 - h. cautions and warnings
 - i. the location where medications are stored
 - j. the medication withdrawal periods.
3. A Medicated Water SOP (SOP 4.2) must be developed and include the following:
 - a. the protocol
 - b. the deviation measures (what to do if something goes wrong)
 - c. the verification measure.
4. The Medicated Water SOP (SOP 4.2) must be adequately implemented.

For your convenience, templates for the Medicated Water SOP (SOP 4.2) and records listed above have been developed for you to use.

RATIONALE

- a. It is essential to treat the right pigs with the right medication at the right dosage at the right time.
 - b. Following the Medicated Water SOP (SOP 4.2) helps ensure that all medication withdrawal periods have been met prior to sending pigs to slaughter.
 - c. It is crucial that medicated water only be administered according to the instructions on the label or on the prescription issued by a licensed veterinarian.
 - d. The frequent calibration of the water medicator by trained personnel is crucial to ensure the correct amount of medication is distributed.
 - e. Identifying treated pigs reduces the risk of drug residue in pork.
 - f. The Medication and Vaccine Usage Plan (R-P) and the Treatment Record (R-T) allow the producer to demonstrate that medications and vaccines use on-farm are administered at the approved dosage and respect the PigSAFE Drug Use Policy.
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GUIDANCE

- a. It is recommended that pigs be identified by pen(s) or group(s).
- b. Read the manufacturer's directions on the use of your water medicator and ensure that it is properly set up.
- c. The calibration of the water medicator should be:
 - i. completed according to the manufacturer's specifications or the veterinarian's instructions and
 - ii. recorded.
- d. A Water medicator calibration Fact Sheet (F-4) is available in the Fact Sheet section of this manual.
- e. If necessary, appropriate stabilizers or chlorine binders should be used to ensure medications and vaccines will not be damaged by the stock solution or water.
- f. Water lines can become contaminated with accumulated organic matter, pathogens and mineral buildup. It is recommended that water lines and containers (e.g., bulk tank) used to mix the stock solution be cleaned prior to administering vaccines or other medication via water to ensure full treatment efficacy.
- g. Permanently colour-coding water valves and lines can help to ensure that only targeted pigs are treated.
- h. The solution should be mixed continuously to ensure no precipitation.
- i. It is recommended that a water meter be used to measure the volume of water used.
- j. Water consumption may increase 15% to 50% when barn temperatures exceed the upper limit for the pigs' comfort level.
- k. Table 1, on the following page, provides an overview of typical water consumption by type of pig.

Table 1: Water Consumption by Swine

Type	Weight Range (kg)	Water Requirement Range (L/Day) ¹	Average Water Use (L/Day) ²
Weaner	7 to 22	1.0 to 3.2	2.0
Feeder pig	23 to 36	3.2 to 4.5	4.5
	36 to 70	4.5 to 7.3	4.5
	70 to 110	7.3 to 10	9
Boar or gestating sow		13.6 to 17.2	15
Lactating sow ³	–	18.1 to 22.7	20

¹ A result of the animals' environment and management.

² Typical consumption over a year on a daily basis under average agricultural conditions in Ontario.

³ Includes unweaned piglets.

Source: Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) fact sheet, 2015.

AUDIT QUESTIONS

Q#	Audit Questions and Interpretations	Verification				
		Compliant	NC-Minor	NC-Major	NC-Critical	N/A
Q4.2.1	Is water-administered medication used on-farm? (If not, go to Section 4.3)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Q4.2.2	Verify that medications and vaccines administered through the drinking water are recorded on the Treatment Record (R-T).	Full and Partial Validation: > R-T: Treatment Record > R-P: Medication and Vaccine Usage Plan > veterinary prescription				
	Are water-administered medications and vaccines recorded on the Treatment Record (R-T)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Q4.2.3	Verify that medications and vaccines that are administered through the drinking water are recorded on the Medication and Vaccine Usage Plan (R-P).	Full and Partial Validation: > R-T: Treatment Record > R-P: Medication and Vaccine Usage Plan > veterinary prescription				
	Are water-administered medications and vaccines recorded on the Medication and Vaccine Usage Plan (R-P)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Q#	Audit Questions and Interpretations	Verification				
		Compliant	NC-Minor	NC-Major	NC-Critical	N/A
Q4.2.4	Verify that the Medicated Water SOP (SOP 4.2) includes all required elements: <ol style="list-style-type: none"> the protocol deviation measures describing what to do if something goes wrong the verification measures (to be completed yearly). All required elements are listed on SOP 4.2 Medicated Water.	Full and Partial Validation: > SOP 4.2: Medicated Water				
	Does the site have a Medicated Water SOP (SOP 4.2) that includes:					
	a. the protocol with all PigSAFE-required elements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	b. the deviation measures describing what to do if something goes wrong?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	c. the verification measures?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Q4.2.5	Verify that the Medicated Water SOP (SOP 4.2) is adequately implemented by: <ol style="list-style-type: none"> cross-referencing the Treatment Record (R-T) with the existing prescriptions cross-referencing the Treatment Record (R-T) with the Medication and Vaccines Usage Plan (R-P). 	Full and Partial Validation: > R-B: Training Record > R-P: Medication and Vaccine Usage Plan > R-T: Treatment Record > R-1: Verification Record > R-2: Incident Report > R-3: Corrective Action Request > R-4: Monitoring Record > veterinary prescription > observation (full validation only) > interview				
	Has a Medicated Water SOP (SOP 4.2) been implemented adequately?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

N/A = not applicable; SOP = standard operating procedure



LEVELS OF COMPLIANCE – EXAMPLES

COMPLIANT

- › The Medicated Water SOP (SOP 4.2) is complete and adequately implemented.
- › All records are complete and up to date.

MINOR NON-COMPLIANCE **Timeline: 60 days**

- › Some elements have not been written down or are missing from the Medicated Water SOP (SOP 4.2) or records.

MAJOR NON-COMPLIANCE **Timeline: 30 days**

- › The Medicated Water SOP (SOP 4.2) is not available.
- › The records are not available.
- › There is evidence of deviations that were not corrected (e.g., the wrong group of pigs was treated and no corrective action was implemented.)
- › Some elements of the Medicated Water SOP (SOP 4.2) were not implemented (e.g. has the water medicator been calibrated?).

CRITICAL NON-COMPLIANCE **Timeline: 24 hours**

- › The slaughterhouse found drug residue in the meat without prior notice from the Site Manager.
- › The slaughterhouse notified the PigSAFE | PigCARE Provincial Coordinator regarding the presence of drug residue.