COUNTY OF SAN LUIS OBISPO
Department of Agriculture/Weights and Measures
2156 SIERRA WAY, SUITE A • SAN LUIS OBISPO, CALIFORNIA 93401-4556
MARTIN SETTEVENDEMIE (805) 781-5910
AGRICULTURAL COMMISSIONER/SEALER FAX: (805) 781-1035
www.slocounty.ca.gov/agcomm AgCommSLO@co.slo.ca.us

RESTRICTED MATERIALS PERMIT CONDITION #14B
Metam Sodium/Potassium
Shank or Rod Bar Applications
Revised 4/1/2016

General Requirements

1. These conditions apply to pesticides containing the active ingredient, metam sodium/potassium. Users shall comply with metam sodium/potassium product labeling, permit conditions, condition attachments and pesticide laws and regulation. When requirements differ, the most stringent requirement shall be followed, unless there is specific guidance about exceptions.

2. It is the responsibility of both the property operator and pest control business (PCB) to comply with product label instructions, pesticide regulations and permit conditions. Failure to comply may result in an administrative penalty consisting of a fine to one or both parties.

3. All complaints of pesticide exposure or unsafe conditions shall be reported to the Agricultural Commissioner as soon as possible and no later than the next workday.

4. The application block size is limited to 80 acres at one location within a 24-hour period. An application block is a field or portion of a field treated with a fumigant in any 24-hour period.

5. The Rod Bar Application: Backward-facing hollow tube (rod) attached to a metal blade-like horizontal bar. The rod bar is designed to operate under the surface of pre-formed beds, dispersing metam through holes spaced ½–1 inch linearly along the entire length of the bar. The application is immediately followed by a bed shaper or solid press rollers that compact the soil over the treated area. The rod bar application method is a variation of the shank injection method described on metam sodium and metam potassium product labels. Follow the product label requirements for shank injection applications when using the rod bar application method.

6. All applications must start no earlier than 1 hour after sunrise and must be completed in time to allow post-application water seals to begin no later than 1 hour before sunset. (Exception for nighttime shank applications listed below under Application Timing).

7. The permit applicant shall provide a Soil Fumigation Plan and site map. The plan and site map are conditions of the permit. Indicate the following information in your fumigation plan and site map:
    a. The time (within a 12-hour window) that each application is scheduled to commence.
    b. Demonstrate that sufficient water is available for application, post-application water seals, and offsite movement suppression requirements.
    c. If the fumigant is applied in strips; the calculations to determine the broadcast equivalent application rate shall be included with the Soil Fumigation Plan (see Calculating the Broadcast Equivalent Application Rate, page 32).
    d. The site map must include:
        i. The number, acreage and outline of proposed application block(s).
        ii. The buffer zone size for each block and the location of the buffer zone edges.
        iii. The application block dimensions.
        iv. The buffer zone size and dimensions (feet) and approximate location of signs indicating buffer zones and treated field(s).
        v. Roadways, rights-of-ways, and sidewalks or other permanent walking paths.
        vi. The location of any wells within 100 feet of the proposed fumigation site/field.
        vii. The location of all difficult to evacuate sites within ¼ mile of the fumigation site.
        viii. The location with a description of occupied structures and bystander areas within ½ mile of the fumigation site and all schools within 1 mile of the fumigation site.
        ix. The location and distance to sensitive areas.

8. The Soil Fumigation Plan shall be submitted and approved and the fumigant added to the permit prior to submittal of the Notice of Intent (NOI). Please note it may take several days for the Soil Fumigation Plan to be approved; **submitting the plan a week prior to the NOI recommended.**

9. The fumigating property operator is responsible for the fumigated ground until the ERP (early restricted period) is over and aeration is complete.

10. **Additional conditions may be required by the Agricultural Commissioner and specified in supplemental permit conditions.**

Notice of Intents (NOI)

1. NOIs must be submitted by 2:00 pm, 2 days (48 hours) prior to the proposed application. NOIs for applications planned for Sundays or Mondays must be submitted no later than 2:00 pm on the previous Thursday.

2. For multiple blocks fumigated sequentially, submit one NOI with a block schedule or a separate NOI for each block.

3. A valid recommendation from a registered pest control adviser shall be submitted before the NOI is accepted and the application is allowed.

4. In addition to information required in Title 3 CCR 6434(b), the following information must be submitted with the NOI:
    a. The certified applicator's 24-hour contact telephone number.
    b. A copy of the completed Fumigation Notice Form (if applicable).
    c. A copy of the completed Notification Log with a site map of adjacent sites numbered to correspond to the Notification Log (if applicable).
    d. A copy of written permission to allow a buffer zone to extend onto adjoining property (if applicable).
    e. Copy of vacating agreement(s) for the resident(s) of any structure within the buffer zone (if applicable).
    f. The buffer zone size and duration if greater than required by the product label.
    g. The method of post-application treatment to be used to suppress offsite movement, including the number of post-application water seals, if applicable.

5. The fumigation cannot begin sooner than the time listed on the NOI and must begin within 12 hours of the scheduled time. Any change in the NOI, including but not limited to acreage, scheduling, or buffer zones, must be submitted in writing for approval by the Agricultural Commissioner. The 48-hour waiting period may be waived by the Agricultural Commissioner.

Emergency Preparedness and Response Measures

1. If the product label required Emergency Preparedness and Response Measures are triggered, then the certified applicator must declare on the Soil Fumigation Plan which method of emergency preparedness will be followed; Site Monitoring or Neighbor Notification.

2. If site monitoring is chosen as the method of Emergency Preparedness, the field must be monitored eight times during the duration of the buffer zone. Four of those eight times must be within 1 hour of each midnight and noon.

3. The Emergency Preparedness and Response site monitoring must be conducted as follows:
    a. Monitoring must be done at the outer edge of the buffer zone.
    b. Monitoring must be done in the direction of bystanders, residences and businesses, and in the direction that the wind is blowing.
    c. Monitoring must be done at each side of the buffer zone perimeter on calm days.

d. The person conducting the monitoring must have full olfactory capabilities (e.g. must not be impaired by allergies or head colds).

4. If Neighbor Notification is selected as the method of Emergency Preparedness, the Response Information for Neighbors must be provided in both English and Spanish.

5. The Agricultural Commissioner must be notified immediately if the Emergency Response Plan is implemented. After normal working hours, leave a message at 781-5910.

6. Additional information may be required on certain sites.

Application Restrictions Near Schools, Day Care Centers and Preschools

1. Schools are considered occupied when they are in session, scheduled to be in session and/or hosting public events at the school site while the buffer zone is in effect.

2. A school is defined as an institution for the instruction of children from kindergarten through high school. Also included are daycare centers and preschools, as defined in the Health and Safety Code section 1596.76. "Day care center" means any child day care facility other than a family day care home, and includes infant centers, preschools, extended day care facilities, and school age child care centers.

3. Day care centers and other difficult to evacuate sites are listed at the following website: http://ccld.ca.gov/PG3581.htm For example; select "child care center" as the facility type and the ZIP code, city, county or area code to find the names and addresses of the child care centers in a specific area.

4. All applications are prohibited ½ mile or less from the perimeter of a school property if school is scheduled to be in session during both the application and the 36-hour period following the end of the application.

5. For applications made greater than ½ mile up to 1 mile from the perimeter of a school property and school is scheduled to be in session during both the application and the 36-hour period following the end of the application, several restrictions apply, including:
    a. A minimum of three post-application water seals, unless it meets the requirement of the Agricultural Commissioner discretion detailed under "Post-Application Water Requirements" later in these permit conditions;
    b. Field monitoring every hour for 12 hours following application; and
    c. Applications must comply with the "Application Method Requirements" and "Emergency Response Measures: Offsite Movement Suppression Requirements" as described in the next section.

Offsite Movement Suppression Requirements

1. For both shank or rod bar application methods, the certified applicator supervising the application must verify that the operator of the property to be fumigated has the capability to respond to offsite movement of MITC. The specific capability is shown in Tables 1 and 2. The supervising certified applicator must document that capability in the Emergency Response Plan in the Fumigation Management Plan (FMP).

Table 1. Required Capability to Suppress Offsite Movement Near "Schools"

Distance to Perimeter of Nearest School Property	Water Seal Requirements
½ mile or less and school is scheduled to be in session	Application prohibited
Greater than ½ mile and up to 1 mile, and school is scheduled to be in session	Irrigation equipment and water available for 48 hours post-application Exception: May substitute 3-inch soil cap if: Water is not available, and Application is bedded or strip

Table. 2. Required Capability to Suppress Offsite Movement Near "Occupied Structures" or "Bystander Areas"

Distance to Perimeter of Nearest Occupied Structure or Bystander Area	Water Seal Requirements
¼ mile or less	Irrigation equipment and water available for 48 hours post-application Exception: May substitute 3-inch soil cap if: Water is not available, and Application is bedded or strip
Distance to Perimeter of Nearest Occupied Structure or Bystander Area	**Water Seal Requirements**
Greater than ¼ mile up to 1 mile	Irrigation equipment and water available for 24 hours post-application Exception: May substitute 3-inch soil cap if: Water is not available, and Application is bedded or strip
Greater than 1 mile	Not required

2. When planning to use water to suppress offsite movement, the certified applicator supervising the application must select and document in the Emergency Response Plan located in the FMP, a combination of water quantity, irrigation rate, and duration that meets all four of the following specifications:
    a. Total quantity of 0.20-0.40 inches of water over the treatment site,
    b. Irrigation delivery rate of 0.15-0.25 inches per hour.
    c. Irrigation duration of 2-3 hours.
    d. The size of the fumigated block may not be greater than the area that can be irrigated as required above in 2a, b and c.

3. Follow the application site monitoring requirements listed under **Application Site Monitoring** (see page 9).

4. Whenever offsite movement of MITC is detected, cease the application (if still underway) and initiate the Emergency Response Plan indicated in the FMP.

5. The Agricultural Commissioner must be notified immediately if the Emergency Response Plan is implemented.

6. Obtain authorization from Agricultural Commissioner prior to restarting any application that has been ceased due to implementing the emergency response plan.

Buffer Zones

The buffer zone is measured from the perimeter of the application block. Restrictions apply from the start of the application until the expiration of the buffer zone period.

1. Buffer zone credits are not allowed.

2. Buffer zones are in effect at the start of the application and shall remain in effect for a minimum of 48 hours after the application is complete.

3. Non-handlers, including but not limited to fieldworkers, residents, pedestrians, lunch truck personnel, and other bystanders shall be excluded from the buffer zone during the buffer zone period.

4. Buffer zones shall not contain occupied structures. All structures within the buffer zones shall be vacated and vacating agreements must be signed by the resident/property operator and submitted to the Agricultural Commissioner with the NOI. See the Vacating Agreement form.

5. Buffer zones shall not extend onto adjoining properties, unless written permission has been obtained from the adjoining resident/property operator and submitted to the Agricultural Commissioner with the NOI. See Permission for a Fumigant Buffer Zone to Extend onto Adjoining Property form.

6. Buffer zones shall not extend onto bystander areas. A bystander area is any area used or visited by people on a daily basis, including parks, playgrounds, lakes, reservoirs, bus stops, and other similar areas where groups of people visit, or other areas identified by the Agricultural Commissioner.

7. The Agricultural Commissioner may deny or add restrictions for buffer zones that extend onto or across transit sites (streets, highways, railroads, etc).

8. The buffer zone distance shall be determined by using the broadcast equivalent application rate which must be calculated using one of the the formulas provided on the Calculating the Broadcast Equivalent Application Rate form. Please show your calculations on the bottom of the page.

9. Use the attached buffer zone tables to determine the buffer zone distance. Include the following restrictions:
    a. All metam sodium applications require a minimum buffer zone of 100 feet.
    b. All metam potassium applications require a minimum buffer zone of 90 feet.
    c. Use buffer zone tables 1 through 9 as appropriate based on the product's percent active ingredient and number of post-application water seals to determine the buffer zone distance.
    d. If the tables do not capture the specific acreage or application rate, round up to the nearest acre or rate.

Posting Requirements

1. The supervising certified applicator shall ensure that both the treated field and the buffer zone around the treated field are posted with warning signs, no sooner than 24 hours prior to the start of the application.
    a. Buffer zones must be posted whether they exist on the property under the control of the fumigating operator or on adjoining property.
    b. The buffer zone warning signs shall be placed along the outside perimeter of the buffer zone; at all points of entry, corners and at intervals of every 200 feet.
    c. If multiple contiguous blocks are fumigated within a 14 day period, the entire periphery of the contiguous blocks' buffer zones may be posted. If posting multiple contiguous blocks, the signs must remain posted until the buffer zone of the last fumigated block has expired.
    d. The Agricultural Commissioner may allow exceptions to posting.

2. The property operator shall maintain the posting of the warning signs around the treated field after the application, and remove the signs within 3 days of the expiration of the Entry Restricted Period.

3. The property operator shall maintain the posting of the buffer zone for 48 hours (duration of the buffer zone), and remove the buffer zone signs within 3 days after the end of the buffer zone period and prior to allowing workers into the buffer zone area.

Application Methods Requirements

1. All application equipment must be inspected immediately prior to use to assure it is in good working condition.

2. Application block size cannot exceed 80 acres in a 24-hour period.

3. Specific maximum application block sizes are shown in tables 3 and 4 below.

Table 3 Maximum Size of Application Block Treated Within 24 Hours for Shank Applications Near "Schools"

Distance to Perimeter of Nearest School Property	Maximum Application Block Size
½ mile or less and school is scheduled to be in session	Application prohibited
Greater than ½ mile and up to 1 mile, and school is scheduled to be in session	40 acres
Greater than 1 mile, or school is not scheduled to be in session during both the application and the 36-hour period following the end of the application	80 acres

Table 4 Maximum Size of Application Block Treated Within 24 Hours for Shank Applications Near "Occupied Structures" or "Bystander Area"

Distance to Perimeter of Nearest Occupied Structures or Bystander Area	Maximum Application Block Size
¼ mile or less	40 acres
Greater than ¼ mile	80 acres

Application Timing and Application Equipment Requirements

1. Applications must start no earlier than 1 hour after sunrise and must be completed in time to allow post-application water seals to begin no later than 1 hour before sunset.

2. Nighttime (shank only) applications are allowed under the following conditions:
    a. Shank applications begin no earlier than 1 am (broadcast or bed).
    b. Allowed year round.
    c. Before application, thoroughly cultivate the field with a disc or spring tooth bar to remove clods.
    d. The application equipment must meet the following specific criteria;
        i. The shanks must be set on three tool bars spaced 12-16 inches apart from front to back.
        ii. The shanks must be staggered on each tool bar to produce a final overall shank spacing of 9-11 inches.
        iii. Injection depth on each shank must be 3-4 inches, 6-7 inches, and 9-10 inches.

iv. Anytime the shanks are lifted from the ground, nitrogen must be used to purge the system before application bar is lifted out of the ground.

e. Compaction equipment;
   i. The application tool bars must be followed by a ring roller that is at least as wide as the application tool bars, with 4 gauge wheels controlled by hydraulic cylinders to control depth and/or pressure, OR
   ii. The application tool bars must be followed with a coil packer that is at least as wide as the application tool bars.
   iii. A minimum of two post-application water seals must be applied, and be underway by sunrise.

<u>Application Site Monitoring</u>

1. The following application and post-application monitoring must be conducted for each metam sodium/potassium application, and is separate from the "Fumigant Site Monitoring" option of the Emergency Preparedness and Response Measures" specified on the product label.

2. The application and post application monitoring criteria must be documented:
   a. Preapplication and Application Monitoring form (page 33)
   b. Post Application Water Seal form (page 34)
   c. Post Application Field Monitoring form (page 35)
   d. Equivalent forms may be substituted.
   e. Attach all forms to the FMP Post-Application Summary

3. If monitoring indicates a change that could result in offsite movement (e.g. increased or greatly decreased wind speed, change in wind direction toward occupied structures) the certified applicator supervising the application must be ready to carry out the requirements described in the Emergency Response Plan located in the FMP and conducted as follows:
   a. Monitoring must be done at the outer edge of the buffer zone.
   b. Monitoring must be done in the direction of the bystanders, residences, and businesses, and in the direction that the wind is blowing.
   c. Monitoring must be done in all directions on calm days (calm day is when wind speeds are forecast to drop below 5 mph and/or when field observation confirms the same).
   d. The person monitoring must have full olfactory capabilities (e.g. not impaired by allergies or colds).
   e. Handlers, performing fumigant site monitoring tasks outside the buffer zone, must not wear air purifying respirators.

4. The Agricultural Commissioner must be notified immediately if the emergency response plan is implemented. After normal working hours, leave a message at 781-5910.

5. Pre-Application:
   a. Immediately prior to application, monitor and document:
      i. Wind speed and direction.

ii. Soil and air temperature at the application site immediately prior to application.

6. During Application:
   a. Every hour until the application is complete, monitor and document:
      i. Wind speed and direction.
      ii. Any unusual condition observed at or adjacent to the application (e.g. odor, reported symptoms of exposure, equipment failure, spill).

7. Post Application:
   On the day of application, the certified applicator supervising the application must ensure that a trained handler is at the site continually from 1 hour before sunset through 1 hour after sunset, in addition to the periods required to conduct post-application monitoring. If the trained handler is an employee, he or she must have the authority to initiate the Emergency Response Plan whenever needed, or must be able to immediately contact the person who has that authority.
   a. For 12 hours, monitor and document:
      i. Wind speed and direction
      ii. Air temperature
      iii. Any unusual conditions observed at the worksite (e.g., dry soil conditions, odor or irrigation equipment failure) and whether sensory irritation is experienced.
      iv. Monitoring must be done in all directions on calm days.
      v. Post-application watering information. Record start and stop times for water seals, as well as total inches applied on "Post-Application Water Treatments"
      vi. Specific monitoring intervals are required as shown in Tables 5 and 6:

Table 5. Frequency of Post-Application Monitoring Required Near "Schools"

Distance to Perimeter of Nearest School Property	**Monitoring Interval**
½ mile or less and school is scheduled to be in session (application block size must be 5 acres or less)	Application prohibited
Greater than ½ mile and up to 1 mile and school is scheduled to be in session	Every hour

Table 6. Frequency of Post-Application Monitoring Required Near "Occupied Structures" and "Bystander Areas"

Distance to Perimeter of Nearest Occupied Structure of Bystander Area	**Monitoring Interval**
¼ mile or less	Every hour
Greater than ¼ mile	Every 2 hours

Post-Application Water Seals

1. Post-application water seals are required and must be recorded on the "Post Application Water Seal form (page 34), and attached to the Post-Application Summary.

2. Water can be applied at any time in response to odor or illness.

3. For each post-application water seal discussed below, the certified applicator supervising the application must ensure a combination of water quantity, irrigation rate, and duration that meets all of the following specifications:
    a. Total quantity of 0.20-0.40 inches of water over the treatment site,
    b. irrigation delivery rate of 0.15-0.25 inches per hour, and
    c. irrigation duration of 2-3 hours
    d. The size of the fumigated block may not be greater than the area that can be irrigated as required above in 2a, b and c.

4. For nighttime shank application, a minimum of two post-application water seals are required.

5. Refer to Table 7 and 8 for post-application water seals near schools, occupied structures and bystander areas:

Table 7. Post-Application Water Seals Required Near Schools

Distance to Perimeter of Nearest School Property	**Water Seal Requirements**
½ mile or less and school is scheduled to be in session	Application prohibited
Greater than ½ mile and up to 1 mile, and school is scheduled to be in session	Minimum of 3 water seals (Agricultural Commissioner discretion to reduce to 2)
Greater than 1 mile, or school is not scheduled to be in session during both the application and the 36-hour period following the end of the application	Minimum of 2 water seals (Agricultural Commissioner discretion to reduce to 1)

Table. 8 Post-Application Water Seals Required Near "Occupied Structures" and "Bystander Areas"

Distance to Perimeter of Nearest "Occupied Structures" and "Bystander Areas"	**Water Seal Requirements**
¼ mile or less	Minimum of 3 water seals (Agricultural Commissioner discretion to reduce to 2)
Greater than ¼ mile	Minimum of 2 water seals (Agricultural Commissioner discretion to reduce to 1)

6. Use the following timing for whichever post-application water seals are applied:
    a. Post-application water seal 1 (Day 1)---Apply a minimum of 0.20-0.40 inches of water to application block, at a rate of 0.15-0.25 inches per hour, starting within 30 minutes of completion of the application.
    b. Post-application water seal 2 (Day 1)---Apply a minimum of 0.20-0.40 inches of water to application block, at a rate of 0.15-0.25 inches per hour, on the same day of application, beginning no earlier than 1 hour before sunset and completing by midnight.
    c. Post-application water seal 3 (Day 2)---Apply a minimum of 0.20-0.40 inches of water to application block, at a rate of 0.15-0.25 inches per hour, beginning no earlier than 1 hour before sunset and completing by midnight.

7. Exceptions to post-application water seal requirements:
    a. Alternate sealing- post-application water seals are not required for applications made under either of the two conditions listed below. For applications meeting one of these two conditions, the buffer zone will remain in effect for 24 hours (unless specified) after the completion of the application:
    b. Post-application water seals are not required following soil injection applications under the following conditions:
        i. Metam is banded using a width 14 inches or less.
        ii. The maximum application rate is 90 pounds active ingredient per acre.
        iii. The injection depth is 3-6 inches:
        iv. A soil capping method is utilized by placing a minimum of 6 inches of soil on top of the bed over the band treatment and compacted using a mechanical device (compaction roller).
        v. Use Attached Buffer Zone Tables 2, 5, and 8 (depending upon percent active ingredient) to determine buffer zones
        vi. The buffer zone duration is 24 hours.
    c. The application block is tarped.
        i. The tarp must remain in place for a minimum of 48 hours.
        ii. Use Tables 2, 5, and 8 to determine the buffer zones.
        iii. The buffer zone remains in effect until the tarp is removed

RESTRICTED MATERIALS PERMIT CONDITION #14 B

Metam Sodium/Potassium

Shank or Rod Bar Applications

(Revised 4/1/2016)

Additional Conditions for Sensitive Sites

- ☐ Neighbor notification of the application
- ☐ Site monitoring required during the buffer zone duration
- ☐ Acreage limited to_____acres per day

This permit condition is for Permittee:_____ Site:_____

Permit Applicant_____

Date:_____

Issuing Officer _____

Date:_____

Buffer Zone Table 1: AMVAC Metam, Metam Sodium, and Vapam (32.7% metam sodium)
Buffer Zone Values for Shank and Rod Bar Applications with Three Post-Application Water Treatments

	Acres treated																							
gal/A	1	2	3	4	5	6	7	8	9	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
≤24	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	125	150	150	175	175	213	213	250	250
25	100	100	100	100	100	100	100	100	100	100	100	100	100	100	125	150	175	175	200	200	238	238	275	275
27	100	100	100	100	100	100	100	100	100	100	100	100	100	125	150	175	206	206	238	238	274	274	311	311
28	100	100	100	100	100	100	100	100	100	100	100	100	125	150	175	200	238	238	275	275	311	311	348	348
30	100	100	100	100	100	100	100	100	100	100	100	125	150	175	200	225	269	269	313	313	348	348	384	384
31	100	100	100	100	100	100	100	100	100	100	100	150	175	200	225	250	300	300	350	350	385	385	420	420
33	100	100	100	100	100	100	100	100	100	100	125	175	206	238	263	288	338	338	388	388	426	426	465	465
35	100	100	100	100	100	100	100	100	100	100	150	200	238	275	300	325	375	375	425	425	468	468	510	510
36	100	100	100	100	100	100	100	100	113	125	175	225	269	313	338	363	413	413	463	463	509	509	555	555
38	100	100	100	100	100	100	105	120	135	150	200	250	300	350	375	400	450	450	500	500	550	550	600	600
39	100	100	100	100	100	103	118	133	148	163	213	263	313	363	388	413	475	475	538	538	594	594	650	650
41	100	100	100	100	100	115	130	145	160	175	225	275	325	375	400	425	500	500	575	575	638	638	700	700
42	100	100	100	100	113	128	143	158	173	188	238	288	338	388	413	438	525	525	613	613	681	681	750	750
44	100	100	100	110	125	140	155	170	185	200	250	300	350	400	425	450	550	550	650	650	725	725	800	800
46	100	100	101	116	131	146	161	176	191	206	263	313	413	425	450	488	581	581	675	675	753	753	831	831
47	100	100	108	123	138	153	168	183	198	213	275	325	425	450	475	525	613	613	700	700	781	781	863	863
49	100	100	114	129	144	159	174	189	204	219	288	338	438	475	500	563	644	644	725	725	809	809	894	894
50	100	105	120	135	150	165	180	195	210	225	300	350	400	450	525	600	675	675	750	750	838	838	925	925
52	100	108	124	139	155	170	186	201	217	232	309	361	413	464	541	619	696	696	773	773	864	864	954	954
53	100	112	128	143	159	175	191	207	223	239	319	372	425	478	558	638	717	717	797	797	890	890	983	983
55	100	115	131	148	164	180	197	213	230	246	328	383	438	492	574	656	738	738	820	820	916	916	1012	1012
57	101	118	135	152	169	186	203	219	236	253	338	394	450	506	591	675	759	759	844	844	942	942	1041	1041
58	104	121	139	156	173	191	208	225	243	260	348	405	463	520	607	694	780	780	867	867	968	968	1070	1070
60	107	125	143	160	178	196	214	232	249	267	356	416	475	534	623	713	802	802	891	891	995	995	1098	1098

	Acres treated																						
gal/A	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**15**	**20**	**25**	**30**	**35**	**40**	**45**	**50**	**55**	**60**	**65**	**70**	**75**	**80**
61	110	128	146	163	183	201	219	238	256	274	366	427	488	548	640	731	823	823	914	914	1021	1021	1127	1127
63	113	131	150	168	188	206	225	244	263	281	375	438	500	563	656	750	844	844	938	938	1047	1047	1156	1156
64	115	135	154	173	192	211	231	250	269	288	384	448	513	577	673	769	865	865	961	961	1073	1073	1185	1185
66	116	138	158	177	197	217	236	256	276	295	394	459	525	591	689	788	886	886	984	984	1099	1099	1214	1214
68	121	141	161	181	202	222	242	262	282	302	403	470	538	605	705	806	907	907	1008	1008	1125	1125	1243	1243
69	124	144	165	186	206	227	248	268	289	309	413	481	550	619	722	825	928	928	1031	1031	1152	1152	1272	1272
71	127	148	169	190	211	232	253	274	295	316	422	492	563	633	738	844	949	949	1055	1055	1178	1178	1301	1301
72	129	151	173	194	216	237	259	280	302	323	431	503	575	647	755	863	970	970	1078	1078	1204	1204	1330	1330
74	132	154	176	198	220	242	264	286	308	330	441	514	588	661	771	881	991	991	1102	1102	1230	1230	1359	1359
75	135	158	180	203	225	248	270	293	315	338	450	525	600	675	788	900	1013	1013	1125	1125	1256	1256	1388	1388

Buffer Zone Table 2: AMVAC Metam, Metam Sodium, and Vapam (32.7% metam sodium)

Buffer Zone Values for Shank and Rod Bar Applications with **Two** Post-Application Water Treatments

	Acres treated																							
gal/A	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**15**	**20**	**25**	**30**	**35**	**40**	**45**	**50**	**55**	**60**	**65**	**70**	**75**	**80**
≤24	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	125	150	150	175	175	213	213	250	250
25	100	100	100	100	100	100	100	100	100	100	100	100	100	100	125	150	175	175	200	200	238	238	275	275
27	100	100	100	100	100	100	100	100	100	100	100	100	100	125	150	175	206	206	238	238	274	274	311	311
28	100	100	100	100	100	100	100	100	100	100	100	100	125	150	175	200	238	238	275	275	311	311	348	348
30	100	100	100	100	100	100	100	100	100	100	100	125	150	175	200	225	269	269	313	313	348	348	384	384
31	100	100	100	100	100	100	100	100	100	100	100	150	175	200	225	250	300	300	350	350	385	385	420	420
33	100	100	100	100	100	100	100	100	100	100	125	175	206	238	263	288	338	338	388	388	426	426	465	465
35	100	100	100	100	100	100	100	100	100	100	150	200	238	275	300	325	375	375	425	425	468	468	510	510
36	100	100	100	100	100	100	100	100	113	125	175	225	269	313	338	363	413	413	463	463	509	509	555	555
38	100	100	100	100	100	100	105	120	135	150	200	250	300	350	375	400	450	450	500	500	550	550	600	600
39	100	100	100	100	100	103	118	133	148	163	213	263	313	363	388	413	475	475	538	538	594	594	650	650
41	100	100	100	100	100	115	130	145	160	175	225	275	325	375	400	425	500	500	575	575	638	638	700	700
42	100	100	100	100	113	128	143	158	173	188	238	288	338	388	413	438	525	525	613	613	681	681	750	750
44	100	100	100	110	125	140	155	170	185	200	250	300	350	400	425	450	550	550	650	650	725	725	800	800
46	100	100	101	116	131	146	161	176	191	206	263	313	413	425	450	488	581	581	675	675	753	753	831	831
47	100	100	108	123	138	153	168	183	198	213	275	325	425	450	475	525	613	613	700	700	781	781	863	863
49	100	100	114	129	144	159	174	189	204	219	288	338	438	475	500	563	644	644	725	725	809	809	894	894
50	100	105	120	135	150	165	180	195	210	225	300	350	400	450	525	600	675	675	750	750	838	838	925	925
52	100	108	124	139	155	170	186	201	217	232	309	361	413	464	541	619	696	696	773	773	864	864	954	954
53	100	112	128	143	159	175	191	207	223	239	319	372	425	478	558	638	717	717	797	797	890	890	983	983
55	100	115	131	148	164	180	197	213	230	246	328	383	438	492	574	656	738	738	820	820	916	916	1012	1012
57	101	118	135	152	169	186	203	219	236	253	338	394	450	506	591	675	759	759	844	844	942	942	1041	1041
58	104	121	139	156	173	191	208	225	243	260	348	405	463	520	607	694	780	780	867	867	968	968	1070	1070
60	107	125	143	160	178	196	214	232	249	267	356	416	475	534	623	713	802	802	891	891	995	995	1098	1098

	Acres treated																							
gal/A	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**15**	**20**	**25**	**30**	**35**	**40**	**45**	**50**	**55**	**60**	**65**	**70**	**75**	**80**
61	110	128	146	163	183	201	219	238	256	274	366	427	488	548	640	731	823	823	914	914	1021	1021	1127	1127
63	113	131	150	168	188	206	225	244	263	281	375	438	500	563	656	750	844	844	938	938	1047	1047	1156	1156
64	115	135	154	173	192	211	231	250	269	288	384	448	513	577	673	769	865	865	961	961	1073	1073	1185	1185
66	116	138	158	177	197	217	236	256	276	295	394	459	525	591	689	788	886	886	984	984	1099	1099	1214	1214
68	121	141	161	181	202	222	242	262	282	302	403	470	538	605	705	806	907	907	1008	1008	1125	1125	1243	1243
69	124	144	165	186	206	227	248	268	289	309	413	481	550	619	722	825	928	928	1031	1031	1152	1152	1272	1272
71	127	148	169	190	211	232	253	274	295	316	422	492	563	633	738	844	949	949	1055	1055	1178	1178	1301	1301
72	129	151	173	194	216	237	259	280	302	323	431	503	575	647	755	863	970	970	1078	1078	1204	1204	1330	1330
74	132	154	176	198	220	242	264	286	308	330	441	514	588	661	771	881	991	991	1102	1102	1230	1230	1359	1359
75	135	158	180	203	225	248	270	293	315	338	450	525	600	675	788	900	1013	1013	1125	1125	1256	1256	1388	1388

Buffer Zone Table 3: AMVAC Metam, Metam Sodium, and Vapam (32.7% metam sodium)

Buffer Zone Values for Shank and Rod Bar Applications with **One** Post-Application Water Treatments

	Acres treated																							
gal/A	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**15**	**20**	**25**	**30**	**35**	**40**	**45**	**50**	**55**	**60**	**65**	**70**	**75**	**80**
≤24	100	100	100	100	100	300	300	300	300	300	400	600	700	700	700	900	1100	1100	1100	1100	1100	1100	1100	1300
25	100	100	100	100	100	300	300	300	300	300	400	600	700	700	700	900	1100	1100	1100	1100	1100	1100	1100	1300
27	100	250	250	250	250	500	500	500	500	500	650	850	1050	1050	1050	1300	1450	1450	1450	1450	1450	1450	1450	1750
28	100	250	250	250	250	500	500	500	500	500	650	850	1050	1050	1050	1300	1450	1450	1450	1450	1450	1450	1450	1750
30	100	250	250	250	250	500	500	500	500	500	650	850	1050	1050	1050	1300	1450	1450	1450	1450	1450	1450	1450	1750
31	100	250	250	250	250	500	500	500	500	500	650	850	1050	1050	1050	1300	1450	1450	1450	1450	1450	1450	1450	1750
33	100	350	350	350	350	650	650	650	650	650	850	1100	1400	1400	1400	1700	1800	1800	1800	1800	1800	1800	1800	2200
35	100	350	350	350	350	650	650	650	650	650	850	1100	1400	1400	1400	1700	1800	1800	1800	1800	1800	1800	1800	2200
36	100	350	350	350	350	650	650	650	650	650	850	1100	1400	1400	1400	1700	1800	1800	1800	1800	1800	1800	1800	2200
38	100	350	350	350	350	650	650	650	650	650	850	1100	1400	1400	1400	1700	1800	1800	1800	1800	1800	1800	1800	2200
39	100	500	500	500	500	850	850	850	850	850	1100	1350	1750	1750	1750	2100	2150	2150	2150	2150	2150	2150	2150	NA
41	100	500	500	500	500	850	850	850	850	850	1100	1350	1750	1750	1750	2100	2150	2150	2150	2150	2150	2150	2150	NA
42	100	500	500	500	500	850	850	850	850	850	1100	1350	1750	1750	1750	2100	2150	2150	2150	2150	2150	2150	2150	NA
44	100	500	500	500	500	850	850	850	850	850	1100	1350	1750	1750	1750	2100	2150	2150	2150	2150	2150	2150	2150	NA
46	100	600	600	600	600	1000	1000	1000	1000	1000	1300	1600	2100	2100	2100	2500	2500	2500	2500	2500	2500	2500	2500	NA
47	100	600	600	600	600	1000	1000	1000	1000	1000	1300	1600	2100	2100	2100	2500	2500	2500	2500	2500	2500	2500	2500	NA
49	100	600	600	600	600	1000	1000	1000	1000	1000	1300	1600	2100	2100	2100	2500	2500	2500	2500	2500	2500	2500	2500	NA
50	100	600	600	600	600	1000	1000	1000	1000	1000	1300	1600	2100	2100	2100	2500	2500	2500	2500	2500	2500	2500	2500	NA
52	150	700	700	700	700	1150	1150	1150	1150	1150	1500	1850	2300	2300	2300	NA	NA	NA	NA	NA	NA	NA	NA	NA
53	150	700	700	700	700	1150	1150	1150	1150	1150	1500	1850	2300	2300	2300	NA	NA	NA	NA	NA	NA	NA	NA	NA
55	150	700	700	700	700	1150	1150	1150	1150	1150	1500	1850	2300	2300	2300	NA	NA	NA	NA	NA	NA	NA	NA	NA
57	150	700	700	700	700	1150	1150	1150	1150	1150	1500	1850	2300	2300	2300	NA	NA	NA	NA	NA	NA	NA	NA	NA
58	200	800	800	800	800	1300	1300	1300	1300	1300	1650	2050	2500	2500	2500	NA	NA	NA	NA	NA	NA	NA	NA	NA
60	200	800	800	800	800	1300	1300	1300	1300	1300	1650	2050	2500	2500	2500	NA	NA	NA	NA	NA	NA	NA	NA	NA
61	200	800	800	800	800	1300	1300	1300	1300	1300	1650	2050	2500	2500	2500	NA	NA	NA	NA	NA	NA	NA	NA	NA
63	200	800	800	800	800	1300	1300	1300	1300	1300	1650	2050	2500	2500	2500	NA	NA	NA	NA	NA	NA	NA	NA	NA
64	250	900	900	900	900	1450	1450	1450	1450	1450	1850	2300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

	Acres treated																							
gal/A	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**15**	**20**	**25**	**30**	**35**	**40**	**45**	**50**	**55**	**60**	**65**	**70**	**75**	**80**
66	250	900	900	900	900	1450	1450	1450	1450	1450	1850	2300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
68	250	900	900	900	900	1450	1450	1450	1450	1450	1850	2300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
69	250	900	900	900	900	1450	1450	1450	1450	1450	1850	2300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
71	300	1000	1000	1000	1000	1600	1600	1600	1600	1600	2000	2500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
72	300	1000	1000	1000	1000	1600	1600	1600	1600	1600	2000	2500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
74	300	1000	1000	1000	1000	1600	1600	1600	1600	1600	2000	2500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
75	300	1000	1000	1000	1000	1600	1600	1600	1600	1600	2000	2500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

NA= Not Allowed Buffer Zone Greater Than ½ Mile

Buffer Zone Table 4: Metam CLR, Metam 426, Sectagon 42, and Vapam HL (42% metam sodium)

Buffer Zone Values for Shank and Rod Bar Applications with **Three** Post-Application Water Treatments

	Acres treated																							
gal/A	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**15**	**20**	**25**	**30**	**35**	**40**	**45**	**50**	**55**	**60**	**65**	**70**	**75**	**80**
1	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
4	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
5	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
6	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
7	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
9	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
11	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
12	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
13	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
14	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
15	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
16	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
18	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
19	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
20	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
21	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
22	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
23	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
25	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
26	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
27	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	105	105
28	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	120	120

	Acres treated																							
gal/A	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**15**	**20**	**25**	**30**	**35**	**40**	**45**	**50**	**55**	**60**	**65**	**70**	**75**	**80**
29	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	104	104	136	136
31	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	122	122	151	151
32	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	115	115	141	141	166	166
33	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	103	103	136	136	159	159	182	182
34	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	118	118	157	157	177	177	197	197
35	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	101	138	138	177	177	200	200	223	223
36	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	122	157	157	196	196	223	223	249	249
38	100	100	100	100	100	100	100	100	100	100	100	100	100	100	121	144	177	177	216	216	246	246	276	276
39	100	100	100	100	100	100	100	100	100	100	100	150	150	150	150	166	197	197	236	236	269	269	302	302
40	100	100	100	100	100	100	100	100	100	100	100	150	150	150	163	188	217	217	256	256	292	292	328	328
41	100	100	100	100	100	100	100	100	100	100	100	150	150	157	183	209	236	236	275	275	315	315	354	354
42	100	100	100	100	100	100	100	100	100	100	100	150	150	173	199	225	252	252	291	291	334	334	378	378
43	100	100	100	100	100	100	100	100	100	100	100	150	150	189	215	241	268	268	307	307	354	354	401	401
45	100	100	100	100	100	100	100	100	100	100	100	150	165	204	230	258	283	283	322	322	374	374	425	425
46	100	100	100	100	100	100	100	100	100	100	100	150	181	220	248	272	299	299	338	338	393	393	448	448
47	100	100	100	100	100	100	100	100	100	100	100	157	200	236	262	288	315	315	354	354	413	413	472	472
48	100	100	100	100	100	100	100	100	100	100	108	200	204	243	271	299	335	335	374	374	433	433	492	492
49	100	100	100	100	100	100	100	100	100	100	118	200	210	249	280	310	354	354	393	393	453	453	512	512
50	100	100	100	100	100	100	100	100	100	100	128	200	217	256	289	321	374	374	413	413	472	472	532	532
52	100	100	100	100	100	100	100	100	100	100	137	200	223	262	297	332	394	394	433	433	492	492	551	551
53	100	100	100	100	100	100	100	100	100	100	147	200	230	269	306	343	414	414	453	483	512	512	571	571
54	100	100	100	100	100	100	100	100	100	100	157	200	236	275	315	354	433	433	472	472	532	532	591	591
55	100	100	100	100	100	100	100	100	100	110	167	204	243	294	324	365	452	452	491	491	552	552	611	611
56	100	100	100	100	100	100	100	100	102	122	177	211	249	290	333	378	472	472	511	511	572	572	631	631

Buffer Zone Table 5: Metam CLR, Metam 426, Sectagon 42, and Vapam HL (42% metam sodium)

Buffer Zone Values for Shankd and Rod Bar Applications with **Two** Post-Application Water Treatments

	Acres treated																							
gal/A	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**15**	**20**	**25**	**30**	**35**	**40**	**45**	**50**	**55**	**60**	**65**	**70**	**75**	**80**
1	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
4	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
5	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
6	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
7	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
8	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
9	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
11	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
12	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
13	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
14	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
15	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
16	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
18	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
19	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
20	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
21	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
22	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
23	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
25	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
26	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
27	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	105	105
28	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	120	120

	Acres treated																							
gal/A	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**15**	**20**	**25**	**30**	**35**	**40**	**45**	**50**	**55**	**60**	**65**	**70**	**75**	**80**
29	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	104	104	136	136
31	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	122	122	151	151
32	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	115	115	141	141	166	166
33	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	103	103	136	136	159	159	182	182
34	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	118	118	157	157	177	177	197	197
35	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	101	138	138	177	177	200	200	223	223
36	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	122	157	157	196	196	223	223	249	249
38	100	100	100	100	100	100	100	100	100	100	100	100	100	100	121	144	177	177	216	216	246	246	276	276
39	100	100	100	100	100	100	100	100	100	100	100	150	200	200	200	200	200	200	236	236	269	269	302	302
40	100	100	100	100	100	100	100	100	100	100	100	150	200	200	200	200	217	217	256	256	292	292	328	328
41	100	100	100	100	100	100	100	100	100	100	100	150	200	200	200	209	236	236	275	275	315	315	354	354
42	100	100	100	100	100	100	100	100	100	100	150	150	200	200	200	225	252	252	291	291	334	334	378	378
43	100	100	100	100	100	100	100	100	100	100	150	200	250	250	250	300	300	300	307	307	354	354	401	401
45	100	100	100	100	100	100	100	100	100	100	150	200	250	250	250	300	300	300	322	322	374	374	425	425
46	100	100	100	100	100	100	100	100	100	100	150	200	250	250	250	300	300	300	338	338	393	393	448	448
47	100	100	100	100	100	100	100	100	100	100	150	200	250	250	262	300	315	315	354	354	413	413	472	472
48	100	100	100	100	100	100	100	100	100	100	200	250	350	350	350	400	400	400	400	400	433	433	492	492
49	100	100	100	100	100	100	100	100	100	100	200	250	350	350	350	400	400	400	400	400	453	453	512	512
50	100	100	100	100	100	100	100	100	100	100	200	250	350	350	350	400	400	400	413	413	472	472	532	532
52	100	100	100	100	100	100	100	100	100	100	200	250	350	350	350	400	400	400	433	433	492	492	551	551
53	100	100	100	100	100	100	100	100	100	100	200	300	400	400	400	500	500	500	500	500	512	512	571	571
54	100	100	100	100	100	100	100	100	100	100	200	300	400	400	400	500	500	500	500	500	532	532	591	591
55	100	100	100	100	100	100	100	100	100	110	200	300	400	400	400	500	500	500	500	500	552	552	611	611
56	100	100	100	100	100	100	100	100	102	122	200	300	400	400	400	500	500	500	511	511	572	572	631	631

Buffer Zone Table 6: Metam CLR, Metam 426, Sectagon 42, and Vapam HL (42% metam sodium)

Buffer Zone Values for Shankd and Rod Bar Applications with **One** Post-Application Water Treatments

	Acres treated																							
gal/A	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**15**	**20**	**25**	**30**	**35**	**40**	**45**	**50**	**55**	**60**	**65**	**70**	**75**	**80**
1	100	100	100	100	100	100	100	100	100	100	100	200	200	200	200	300	500	500	500	500	500	500	500	600
2	100	100	100	100	100	100	100	100	100	100	100	200	200	200	200	300	500	500	500	500	500	500	500	600
3	100	100	100	100	100	100	100	100	100	100	100	200	200	200	200	300	500	500	500	500	500	500	500	600
4	100	100	100	100	100	100	100	100	100	100	100	200	200	200	200	300	500	500	500	500	500	500	500	600
5	100	100	100	100	100	100	100	100	100	100	100	200	200	200	200	300	500	500	500	500	500	500	500	600
6	100	100	100	100	100	100	100	100	100	100	100	200	200	200	200	300	500	500	500	500	500	500	500	600
7	100	100	100	100	100	100	100	100	100	100	100	200	200	200	200	300	500	500	500	500	500	500	500	600
8	100	100	100	100	100	100	100	100	100	100	100	200	200	200	200	300	500	500	500	500	500	500	500	600
9	100	100	100	100	100	100	100	100	100	100	100	200	200	200	200	300	500	500	500	500	500	500	500	600
11	100	100	100	100	100	200	200	200	200	200	250	400	450	450	450	600	800	800	800	800	800	800	800	900
12	100	100	100	100	100	200	200	200	200	200	250	400	450	450	450	600	800	800	800	800	800	800	800	900
13	100	100	100	100	100	200	200	200	200	200	250	400	450	450	450	600	800	800	800	800	800	800	800	900
14	100	100	100	100	100	200	200	200	200	200	250	400	450	450	450	600	800	800	800	800	800	800	800	900
15	100	100	100	100	100	300	300	300	300	300	400	600	700	700	700	900	1100	1100	1100	1100	1100	1100	1100	1300
16	100	100	100	100	100	300	300	300	300	300	400	600	700	700	700	900	1100	1100	1100	1100	1100	1100	1100	1300
18	100	100	100	100	100	300	300	300	300	300	400	600	700	700	700	900	1100	1100	1100	1100	1100	1100	1100	1300
19	100	100	100	100	100	300	300	300	300	300	400	600	700	700	700	900	1100	1100	1100	1100	1100	1100	1100	1300
20	100	250	250	250	250	500	500	500	500	500	650	850	1050	1050	1050	1300	1450	1450	1450	1450	1450	1450	1450	1750
21	100	250	250	250	250	500	500	500	500	500	650	850	1050	1050	1050	1300	1450	1450	1450	1450	1450	1450	1450	1750
22	100	250	250	250	250	500	500	500	500	500	650	850	1050	1050	1050	1300	1450	1450	1450	1450	1450	1450	1450	1750
23	100	250	250	250	250	500	500	500	500	500	650	850	1050	1050	1050	1300	1450	1450	1450	1450	1450	1450	1450	1750
25	100	350	350	350	350	650	650	650	650	650	850	1100	1400	1400	1400	1700	1800	1800	1800	1800	1800	1800	1800	2200
26	100	350	350	350	350	650	650	650	650	650	850	1100	1400	1400	1400	1700	1800	1800	1800	1800	1800	1800	1800	2200
27	100	350	350	350	350	650	650	650	650	650	850	1100	1400	1400	1400	1700	1800	1800	1800	1800	1800	1800	1800	2200

	Acres treated																							
gal/A	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**15**	**20**	**25**	**30**	**35**	**40**	**45**	**50**	**55**	**60**	**65**	**70**	**75**	**80**
28	100	350	350	350	350	650	650	650	650	650	850	1100	1400	1400	1400	1700	1800	1800	1800	1800	1800	1800	1800	2200
29	100	500	500	500	500	850	850	850	850	850	1100	1350	1750	1750	1750	2100	2150	2150	2150	2150	2150	2150	2150	NA
31	100	500	500	500	500	850	850	850	850	850	1100	1350	1750	1750	1750	2100	2150	2150	2150	2150	2150	2150	2150	NA
32	100	500	500	500	500	850	850	850	850	850	1100	1350	1750	1750	1750	2100	2150	2150	2150	2150	2150	2150	2150	NA
33	100	500	500	500	500	850	850	850	850	850	1100	1350	1750	1750	1750	2100	2150	2150	2150	2150	2150	2150	2150	NA
34	100	600	600	600	600	1000	1000	1000	1000	1000	1300	1600	2100	2100	2100	2500	2500	2500	2500	2500	2500	2500	2500	NA
35	100	600	600	600	600	1000	1000	1000	1000	1000	1300	1600	2100	2100	2100	2500	2500	2500	2500	2500	2500	2500	2500	NA
36	100	600	600	600	600	1000	1000	1000	1000	1000	1300	1600	2100	2100	2100	2500	2500	2500	2500	2500	2500	2500	2500	NA
38	100	600	600	600	600	1000	1000	1000	1000	1000	1300	1600	2100	2100	2100	2500	2500	2500	2500	2500	2500	2500	2500	NA
39	150	700	700	700	700	1150	1150	1150	1150	1150	1500	1850	2300	2300	2300	NA	NA	NA	NA	NA	NA	NA	NA	NA
40	150	700	700	700	700	1150	1150	1150	1150	1150	1500	1850	2300	2300	2300	NA	NA	NA	NA	NA	NA	NA	NA	NA
41	150	700	700	700	700	1150	1150	1150	1150	1150	1500	1850	2300	2300	2300	NA	NA	NA	NA	NA	NA	NA	NA	NA
42	150	700	700	700	700	1150	1150	1150	1150	1150	1500	1850	2300	2300	2300	NA	NA	NA	NA	NA	NA	NA	NA	NA
43	200	800	800	800	800	1300	1300	1300	1300	1300	1650	2050	2500	2500	2500	NA	NA	NA	NA	NA	NA	NA	NA	NA
45	200	800	800	800	800	1300	1300	1300	1300	1300	1650	2050	2500	2500	2500	NA	NA	NA	NA	NA	NA	NA	NA	NA
46	200	800	800	800	800	1300	1300	1300	1300	1300	1650	2050	2500	2500	2500	NA	NA	NA	NA	NA	NA	NA	NA	NA
47	200	800	800	800	800	1300	1300	1300	1300	1300	1650	2050	2500	2500	2500	NA	NA	NA	NA	NA	NA	NA	NA	NA
48	250	900	900	900	900	1450	1450	1450	1450	1450	1850	2300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
49	250	900	900	900	900	1450	1450	1450	1450	1450	1850	2300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
50	250	900	900	900	900	1450	1450	1450	1450	1450	1850	2300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
52	250	900	900	900	900	1450	1450	1450	1450	1450	1850	2300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
53	300	1000	1000	1000	1000	1600	1600	1600	1600	1600	2000	2500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
54	300	1000	1000	1000	1000	1600	1600	1600	1600	1600	2000	2500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
55	300	1000	1000	1000	1000	1600	1600	1600	1600	1600	2000	2500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
56	300	1000	1000	1000	1000	1600	1600	1600	1600	1600	2000	2500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

NA= Not Allowed Buffer Zone Greater Than ½ Mile

Buffer Zone Table 7: Sectagon-K54 and K-Pam (54% metam potassium)

Buffer Zone Values for Shank and Rod Bar Applications with **Three** Post-Application Water Treatments

	Acres treated																							
gal/A	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**15**	**20**	**25**	**30**	**35**	**40**	**45**	**50**	**55**	**60**	**65**	**70**	**75**	**80**
1	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
2	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
3	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
4	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
5	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
6	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
7	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
8	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
9	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
10	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
11	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
12	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
13	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
14	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
15	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
16	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
17	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
18	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
19	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
20	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
21	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
22	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	105	105
23	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	120	120
24	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	104	104	136	136
25	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	94	94	122	122	151	151
26	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	115	115	141	141	166	166

	Acres treated																							
gal/A	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**15**	**20**	**25**	**30**	**35**	**40**	**45**	**50**	**55**	**60**	**65**	**70**	**75**	**80**
27	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	103	103	136	136	159	159	182	182
28	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	118	118	157	157	177	177	197	197
29	90	90	90	90	90	90	90	90	90	90	90	135	135	135	135	135	138	138	177	177	200	200	223	223
30	90	90	90	90	90	90	90	90	90	90	90	135	135	135	135	135	157	157	196	196	223	223	249	249
31	90	90	90	90	90	90	90	90	90	90	90	135	135	135	135	144	177	177	216	216	246	246	276	276
32	90	90	90	90	90	90	90	90	90	90	90	135	135	135	142	180	197	197	236	236	269	269	302	302
33	90	90	90	90	90	90	90	90	90	90	90	135	135	135	163	188	217	217	256	256	292	292	328	328
34	90	90	90	90	90	90	90	90	90	90	90	135	135	157	183	209	236	236	275	275	315	315	354	354
35	90	90	90	90	90	90	90	90	90	90	90	180	180	180	199	225	252	252	291	291	334	334	378	378
36	90	90	90	90	90	90	90	90	90	90	90	180	180	189	215	241	268	268	307	307	354	354	401	401
37	90	90	90	90	90	90	90	90	90	90	90	180	180	204	230	256	283	283	322	322	374	374	425	425
38	90	90	90	90	90	90	90	90	90	90	90	180	181	220	246	272	299	299	338	338	393	393	448	448
39	90	90	90	90	90	90	90	90	90	90	98	180	197	236	262	288	315	315	354	354	413	413	472	472
40	90	90	90	90	90	90	90	90	90	90	108	180	204	243	271	299	335	335	374	374	433	433	492	492
41	90	90	90	90	90	90	90	90	90	90	118	180	210	249	280	310	354	354	393	393	453	453	512	512
42	90	90	90	90	90	135	135	135	135	135	135	225	270	270	289	360	374	374	413	413	472	472	532	532
43	90	90	90	90	90	135	135	135	135	135	137	225	270	270	297	360	394	394	433	433	492	492	551	551
44	90	90	90	90	90	135	135	135	135	135	147	225	270	270	306	360	414	414	453	453	512	512	571	571
45	90	90	90	90	90	135	135	135	135	135	157	225	270	275	315	360	433	433	472	472	532	532	591	591
46	90	90	90	90	90	135	135	135	135	135	180	270	315	315	324	405	452	452	491	491	552	552	611	611
47	90	90	90	90	90	135	135	135	135	135	180	270	315	315	333	405	472	472	511	511	572	572	631	631

Buffer Zone Table 8: Sectagon-K54 and K-Pam (54% metam potassium)

Buffer Zone Values for Shank and Rod Bar Applications with **Two** Post-Application Water Treatments

	Acres treated																							
gal/A	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**15**	**20**	**25**	**30**	**35**	**40**	**45**	**50**	**55**	**60**	**65**	**70**	**75**	**80**
1	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
2	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
3	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
4	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
5	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
6	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
7	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
8	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
9	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
10	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
11	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
12	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
13	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
14	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
15	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
16	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
17	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
18	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
19	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
20	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
21	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
22	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	105	105
23	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	120	120
24	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	104	104	136	136
25	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	94	94	122	122	151	151
26	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	115	115	141	141	166	166

	Acres treated																							
gal/A	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**15**	**20**	**25**	**30**	**35**	**40**	**45**	**50**	**55**	**60**	**65**	**70**	**75**	**80**
27	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	103	103	136	136	159	159	182	182
28	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	118	118	157	157	177	177	197	197
29	90	90	90	90	90	90	90	90	90	90	135	135	180	180	180	180	180	180	180	180	200	200	223	223
30	90	90	90	90	90	90	90	90	90	90	135	135	180	180	180	180	180	180	196	196	223	223	249	249
31	90	90	90	90	90	90	90	90	90	90	135	135	180	180	180	180	180	180	216	216	246	246	276	276
32	90	90	90	90	90	90	90	90	90	90	135	180	225	225	225	270	270	270	270	270	270	270	302	302
33	90	90	90	90	90	90	90	90	90	90	135	180	225	225	225	270	270	270	270	270	292	292	328	328
34	90	90	90	90	90	90	90	90	90	90	135	180	225	225	225	270	270	270	275	275	315	315	354	354
35	90	90	90	90	90	90	90	90	90	90	180	225	315	315	315	360	360	360	360	360	360	360	378	378
36	90	90	90	90	90	90	90	90	90	90	180	225	315	315	315	360	360	360	360	360	360	360	401	401
37	90	90	90	90	90	90	90	90	90	90	180	225	315	315	315	360	360	360	360	360	374	374	425	425
38	90	90	90	90	90	90	90	90	90	90	180	225	315	315	315	360	360	360	360	360	393	393	448	448
39	90	90	90	90	90	90	90	90	90	90	180	270	360	360	360	450	450	450	450	450	450	450	472	472
40	90	90	90	90	90	90	90	90	90	90	180	270	360	360	360	450	450	450	450	450	450	450	492	492
41	90	90	90	90	90	90	90	90	90	90	180	270	360	360	360	450	450	450	450	450	453	453	512	512
42	90	90	90	90	90	135	135	135	135	135	225	315	450	450	450	540	540	540	585	585	585	585	585	585
43	90	90	90	90	90	135	135	135	135	135	225	315	450	450	450	540	540	540	585	585	585	585	585	585
44	90	90	90	90	90	135	135	135	135	135	225	315	450	450	450	540	540	540	585	585	585	585	585	585
45	90	90	90	90	90	135	135	135	135	135	225	315	450	450	450	540	540	540	585	585	585	585	591	591
46	90	90	90	90	90	180	180	180	180	180	270	360	495	495	495	630	630	630	675	675	675	675	675	675
47	90	90	90	90	90	180	180	180	180	180	270	360	495	495	495	630	630	630	675	675	675	675	675	675

Buffer Zone Table 9: Sectagon-K54 and K-Pam (54% metam potassium)

Buffer Zone Values for Shank and Rod Bar Applications with **One** Post-Application Water Treatments

	Acres treated																							
gal/A	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**15**	**20**	**25**	**30**	**35**	**40**	**45**	**50**	**55**	**60**	**65**	**70**	**75**	**80**
1	90	90	90	90	90	90	90	90	90	90	90	180	180	180	180	270	450	450	450	450	450	450	450	540
2	90	90	90	90	90	90	90	90	90	90	90	180	180	180	180	270	450	450	450	450	450	450	450	540
3	90	90	90	90	90	90	90	90	90	90	90	180	180	180	180	270	450	450	450	450	450	450	450	540
4	90	90	90	90	90	90	90	90	90	90	90	180	180	180	180	270	450	450	450	450	450	450	450	540
5	90	90	90	90	90	90	90	90	90	90	90	180	180	180	180	270	450	450	450	450	450	450	450	540
6	90	90	90	90	90	90	90	90	90	90	90	180	180	180	180	270	450	450	450	450	450	450	450	540
7	90	90	90	90	90	90	90	90	90	90	90	180	180	180	180	270	450	450	450	450	450	450	450	540
8	90	90	90	90	90	180	180	180	180	180	225	360	405	405	405	540	720	720	720	720	720	720	720	810
9	90	90	90	90	90	180	180	180	180	180	225	360	405	405	405	540	720	720	720	720	720	720	720	810
10	90	90	90	90	90	180	180	180	180	180	225	360	405	405	405	540	720	720	720	720	720	720	720	810
11	90	90	90	90	90	270	270	270	270	270	360	540	630	630	630	810	990	990	990	990	990	990	990	1170
12	90	90	90	90	90	270	270	270	270	270	360	540	630	630	630	810	990	990	990	990	990	990	990	1170
13	90	90	90	90	90	270	270	270	270	270	360	540	630	630	630	810	990	990	990	990	990	990	990	1170
14	90	90	90	90	90	270	270	270	270	270	360	540	630	630	630	810	990	990	990	990	990	990	990	1170
15	90	225	225	225	225	450	450	450	450	450	585	765	945	945	945	1170	1305	1305	1305	1305	1305	1305	1305	1575
16	90	225	225	225	225	450	450	450	450	450	585	765	945	945	945	1170	1305	1305	1305	1305	1305	1305	1305	1575
17	90	225	225	225	225	450	450	450	450	450	585	765	945	945	945	1170	1305	1305	1305	1305	1305	1305	1305	1575
18	90	315	315	315	315	585	585	585	585	585	765	990	1260	1260	1260	1530	1620	1620	1620	1620	1620	1620	1620	1980
19	90	315	315	315	315	585	585	585	585	585	765	990	1260	1260	1260	1530	1620	1620	1620	1620	1620	1620	1620	1980
20	90	315	315	315	315	585	585	585	585	585	765	990	1260	1260	1260	1530	1620	1620	1620	1620	1620	1620	1620	1980
21	90	315	315	315	315	585	585	585	585	585	765	990	1260	1260	1260	1530	1620	1620	1620	1620	1620	1620	1620	1980
22	90	450	450	450	450	765	765	765	765	765	990	1215	1575	1575	1575	1890	1935	1935	1935	1935	1935	1935	1935	NA
23	90	450	450	450	450	765	765	765	765	765	990	1215	1575	1575	1575	1890	1935	1935	1935	1935	1935	1935	1935	NA
24	90	450	450	450	450	765	765	765	765	765	990	1215	1575	1575	1575	1890	1935	1935	1935	1935	1935	1935	1935	NA
25	90	540	540	540	540	900	900	900	900	900	1170	1440	1890	1890	1890	2250	2250	2250	2250	2250	2250	2250	2250	NA

	Acres treated																							
gal/A	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**15**	**20**	**25**	**30**	**35**	**40**	**45**	**50**	**55**	**60**	**65**	**70**	**75**	**80**
26	90	540	540	540	540	900	900	900	900	900	1170	1440	1890	1890	1890	2250	2250	2250	2250	2250	2250	2250	2250	NA
27	90	540	540	540	540	900	900	900	900	900	1170	1440	1890	1890	1890	2250	2250	2250	2250	2250	2250	2250	2250	NA
28	90	540	540	540	540	900	900	900	900	900	1170	1440	1890	1890	1890	2250	2250	2250	2250	2250	2250	2250	2250	NA
29	135	630	630	630	630	1035	1035	1035	1035	1035	1350	1665	2070	2070	2070	NA	NA	NA	NA	NA	NA	NA	NA	NA
30	135	630	630	630	630	1035	1035	1035	1035	1035	1350	1665	2070	2070	2070	NA	NA	NA	NA	NA	NA	NA	NA	NA
31	135	630	630	630	630	1035	1035	1035	1035	1035	1350	1665	2070	2070	2070	NA	NA	NA	NA	NA	NA	NA	NA	NA
32	180	720	720	720	720	1170	1170	1170	1170	1170	1485	1845	2250	2250	2250	NA	NA	NA	NA	NA	NA	NA	NA	NA
33	180	720	720	720	720	1170	1170	1170	1170	1170	1485	1845	2250	2250	2250	NA	NA	NA	NA	NA	NA	NA	NA	NA
34	180	720	720	720	720	1170	1170	1170	1170	1170	1485	1845	2250	2250	2250	NA	NA	NA	NA	NA	NA	NA	NA	NA
35	225	810	810	810	810	1305	1305	1305	1305	1305	1665	2070	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
36	225	810	810	810	810	1305	1305	1305	1305	1305	1665	2070	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
37	225	810	810	810	810	1305	1305	1305	1305	1305	1665	2070	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
38	225	810	810	810	810	1305	1305	1305	1305	1305	1665	2070	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
39	270	900	900	900	900	1440	1440	1440	1440	1440	1800	2250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
40	270	900	900	900	900	1440	1440	1440	1440	1440	1800	2250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
41	270	900	900	900	900	1440	1440	1440	1440	1440	1800	2250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
42	315	990	990	990	990	1575	1575	1575	1575	1575	1935	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
43	315	990	990	990	990	1575	1575	1575	1575	1575	1935	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
44	315	990	990	990	990	1575	1575	1575	1575	1575	1935	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
45	315	990	990	990	990	1575	1575	1575	1575	1575	1935	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
46	360	1080	1080	1080	1080	1665	1665	1665	1665	1665	2070	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
47	360	1080	1080	1080	1080	1665	1665	1665	1665	1665	2070	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

NA= Not Allowed Buffer Zone Greater Than ½ Mile

CALCULATING THE BROADCAST EQUIVALENT APPLICATION RATE

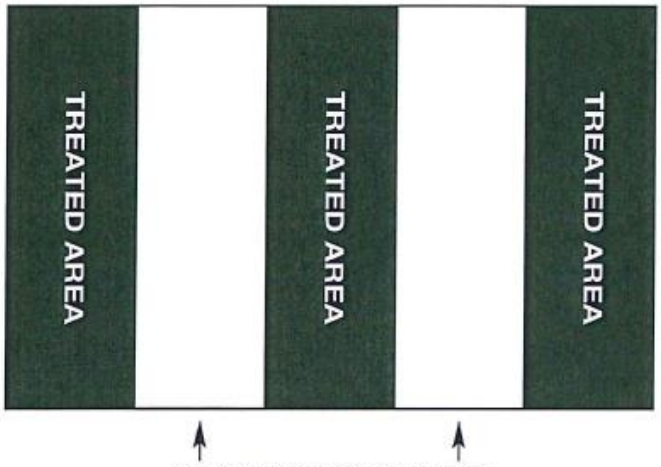
To calculate the broadcast equivalent rate for bedded or strip applications the following information is needed:

- gallons of product per treated acre
- strip or bed bottom width (inches)
- center-to-center row spacing (inches)
- application block size (acres)

Gallons of product **per treated acre** is the ratio of total amount of product applied to the size of the **total area treated** (*e.g.*, the rate of product applied in the bed). For bedded or strip applications, the **total area treated** is the summation of the area (i.e., length x width) of each treated bed bottom or strip that is located within the application block as shown by the black areas in Figure 1 (*e.g.*, black areas are 0.6A or 60% of the area within the application block). The area of the space between the beds/strips is not factored in the total area treated.

The **application block size** is the acreage within the perimeter of the fumigated portion of a field (including furrows, irrigation ditches, roadways). The perimeter of the application block is the border that connects the outermost edges of total area treated with the fumigant product.

Figure 1. Bedded/Strip Application (1 acre application block)



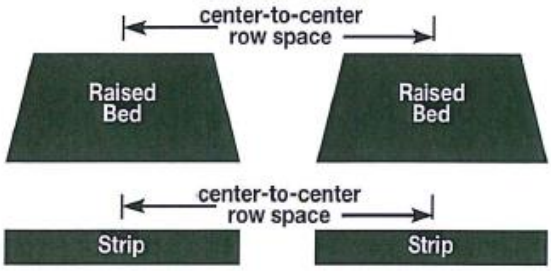
Space Between Beds/Strips is not treated

The "broadcast equivalent rate" must be calculated with the following formula:

$$\text{Broadcast equivalent rate (gallons product/acre)} = \frac{\text{strip or bed bottom width (inches)}}{\text{center-to-center row spacing (inches)}} \times \text{gallons product/treated acre applied in the strip or bed}$$

- The bed width must be measured from the bottom of the bed.
- The center-to-center row spacing must be calculated as shown in Figure 2.
- If there are any ditches, waterways, drive rows and other areas that are not fumigated that are in the application block, multiply the above broadcast equivalent equation by **(total area of strips or beds + row spacing)/(application block size).** A sample calculation is provided.

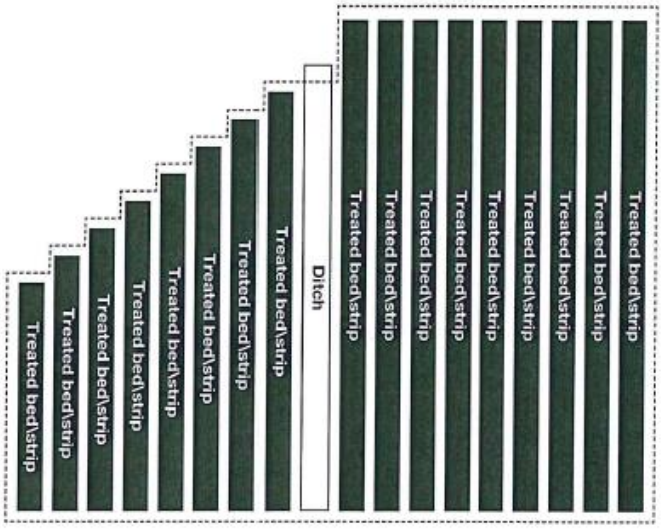
Figure 2. Center Row Spacing



Sample broadcast equivalent rate calculation

Assumptions:

- Application method is shank bedded
- Bed width is 30 inches (measured at the bottom of bed)
- Center-to-center row spacing is 60 inches
- 75 gallons of product per treated acre is applied in the beds
- Total application block size is 10 acres
- Ditch in the middle of application block is 0.25 acres
- Area of beds + row spacing is 9.75 acres



$$\text{broadcast equivalent rate (gallons product/acre)} = \frac{\text{strip or bed bottom width (inches)}}{\text{center-to-center row spacing (inches)}} \times \frac{\text{area of strip or bed + row spacing}}{\text{application block size}} \times \text{Gallons product/treated acre applied in the bed}$$

$$= \frac{\text{30 inch width beds}}{\text{60 inch row spacing}} \times \frac{\text{9.75 acres}}{\text{10 acres}} \times \text{75 gals product/treated acre}$$

= 36.6 gals product/acre

PLEASE SHOW CALCULATIONS BELOW

GROWER: _____

SITE ID NO.: _____

Metam Sodium / Potassium
Pre-Application and Application Monitoring

Wind Speed and Direction
(at 4-6 feet above ground): _____

Soil Temperature (3" depth): _____

Soil Moisture: _____

Air Temperature: _____

Buffer Zone Distance (Feet): _____

Table 1. Hourly Environmental Conditions During Application

Date:	**Time**	**Wind Speed (MPH)**	**Wind Direction (from)**	**Unusual Conditions**
Hour 1				
Hour 2				
Hour 3				
Hour 4				
Hour 5				
Hour 6				
Hour 7				
Hour 8				
Hour 10				
End				

Grower: _____
Site ID No.: _____

Metam Sodium / Potassium
Post Application Water Seals

Table 2. Post-Application Water Seal Sprinkler, Shank, and Dazomet

List Water Seal Number: 1st , 2nd , 3rd	**Date / Time Started**	**Date / Time Completed**	**Inches**	**Comments**

Post Application Water Seal Requirements:

a. Total quantity of 0.20-0.40 inches of water over the treatment site,
b. Irrigation delivery rate of 0.15-0.25 inches per hour.
c. Irrigation duration of 2-3 hours.
d. The size of the fumigated block is limited by the area that can be irrigated as defined above in a, b and c above.

Grower: _____
Site ID No.: _____

Metam Sodium / Potassium
Post Application Field Monitoring

Table 3. Post-Application Field Monitoring

Date:	Time	Air Temp	Wind Speed (MPH)	Wind Direction (from)	Unusual Conditions
1 hour before sunset Day 1					
1 hour after sunset Day 1					
1 hour post application					
2 hours post application					
3 hours post application					
4 hours post application					
5 hours post application					
6 hours post application					
7 hours post application					
8 hours post application					
9 hours post application					
10 hours post application					
11 hours post application					
12 hours post application					

Note: Monitoring is required for a 12-hour period after application. Monitoring is required **every hour** for sensitive areas of areas between ½ - 1 mile of school property when school is in session (or scheduled to be in session while the buffer zone is in effect). Monitoring is required **every two hours** if the application is between ¼ - ½ mile from an occupied structure of bystander area.