



**SPRAY MONITORING FORM (CAUCASUS AND CENTRAL ASIA)**

Name of control operator:

Notes: When appropriate, circle the correct answer; It is mandatory to fill the fields marked with an asterisk (\*).

| <b>1</b> | <b>Identification of the control site</b>                        | <b>1</b>                      | <b>2</b>                      | <b>3</b>                      | <b>4</b>                      | <b>5</b>                      |
|----------|--|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| 1.1*     | Country  |                               |                               |                               |                               |                               |
| 1.2*     | Oblast   |                               |                               |                               |                               |                               |
| 1.3*     | Rayon  |                               |                               |                               |                               |                               |
| 1.4      | Rural district   |                               |                               |                               |                               |                               |
| 1.5*     | Village  |                               |                               |                               |                               |                               |
| 1.6      | Farm or site   |                               |                               |                               |                               |                               |
| 1.7*     | Name of control team leader                                      |                               |                               |                               |                               |                               |
| 1.8*     | Date (Day/Month/Year)  |                               |                               |                               |                               |                               |
| 1.9*     | Latitude (site center)   |                               |                               |                               |                               |                               |
| 1.10*    | Longitude (site center)  |                               |                               |                               |                               |                               |
| 1.11     | Latitude of point #1<br>(geographic coordinates of treated area) |                               |                               |                               |                               |                               |
| 1.12     | Longitude of point #1  |                               |                               |                               |                               |                               |
| 1.13     | Latitude of point #2   |                               |                               |                               |                               |                               |
| 1.14     | Longitude of point #2  |                               |                               |                               |                               |                               |
| 1.15     | Latitude of point #3   |                               |                               |                               |                               |                               |
| 1.16     | Longitude of point #3  |                               |                               |                               |                               |                               |
| 1.17     | Latitude of point #4   |                               |                               |                               |                               |                               |
| 1.18     | Longitude of point #4  |                               |                               |                               |                               |                               |
| 1.19     | Latitude of point #5   |                               |                               |                               |                               |                               |
| 1.20     | Longitude of point #5  |                               |                               |                               |                               |                               |
| 1.21     | Latitude of point #6   |                               |                               |                               |                               |                               |
| 1.22     | Longitude of point #6  |                               |                               |                               |                               |                               |
| 1.23*    | Area infested (ha)   |                               |                               |                               |                               |                               |
| 1.24*    | Area treated (ha)  |                               |                               |                               |                               |                               |
| <b>2</b> | <b>Vegetation data</b>   | <b>1</b>                      | <b>2</b>                      | <b>3</b>                      | <b>4</b>                      | <b>5</b>                      |
| 2.1*     | Type   | Natural / Crop                | Natural / Crop                | Natural / Crop                | Natural / Crop                | Natural / Crop                |
| 2.2*     | Height (cm)  |                               |                               |                               |                               |                               |
| 2.3*     | Vegetation cover   | Rare/Medium/Dense/Absent      | Rare/Medium/Dense/Absent      | Rare/Medium/Dense/Absent      | Rare/Medium/Dense/Absent      | Rare/Medium/Dense/Absent      |
| 2.4      | Crop name  |                               |                               |                               |                               |                               |
| 2.5*     | Damage   | No/ Low/ Medium/ High/ Entire | No/ Low/ Medium/ High/ Entire | No/ Low/ Medium/ High/ Entire | No/ Low/ Medium/ High/ Entire | No/ Low/ Medium/ High/ Entire |
| 2.6      | Damage area (ha)   |                               |                               |                               |                               |                               |
| <b>3</b> | <b>Insecticide information</b>                                   | <b>1</b>                      | <b>2</b>                      | <b>3</b>                      | <b>4</b>                      | <b>5</b>                      |
| 3.1*     | Trade name   |                               |                               |                               |                               |                               |
| 3.2*     | Active substance   |                               |                               |                               |                               |                               |

|          |   |  |  |   |  |  |
|----------|---|--|--|---|--|--|
| 3.3*     | Concentration (%)                                     |  |  |   |  |  |
| 3.4*     | Formulation   | EC/ ULV/ others  | EC/ ULV/ others  | EC/ ULV/ others   | EC/ ULV/ others  | EC/ ULV/ others  |
| 3.5      | Dose rate (l of commercial product/ha)                |  |  |   |  |  |
| 3.6      | Rate of working solution (l/ha)                       |  |  |   |  |  |
| 3.7      | Total volume of working solution actually applied (l) |  |  |   |  |  |
| 3.8      | Number of spores (/ml)                                |  |  |   |  |  |
| <b>4</b> | <b>Weather conditions</b>                             | <b>1</b>   | <b>2</b>   | <b>3</b>  | <b>4</b>   | <b>5</b>   |
| 4.1*     | Start time  | 0 1 2 3 4 5 6 7 8<br>9 10 11 12 13 14<br>15 16 17 18 19 20<br>21 22 23 | 0 1 2 3 4 5 6 7 8<br>9 10 11 12 13 14<br>15 16 17 18 19 20<br>21 22 23 | 0 1 2 3 4 5 6 7 8 9<br>10 11 12 13 14 15 16<br>17 18 19 20 21 22 23 | 0 1 2 3 4 5 6 7 8<br>9 10 11 12 13 14<br>15 16 17 18 19 20<br>21 22 23 | 0 1 2 3 4 5 6 7 8<br>9 10 11 12 13 14<br>15 16 17 18 19 20<br>21 22 23 |
| 4.2*     | End time  | 0 1 2 3 4 5 6 7 8<br>9 10 11 12 13 14<br>15 16 17 18 19 20<br>21 22 23 | 0 1 2 3 4 5 6 7 8<br>9 10 11 12 13 14<br>15 16 17 18 19 20<br>21 22 23 | 0 1 2 3 4 5 6 7 8 9<br>10 11 12 13 14 15 16<br>17 18 19 20 21 22 23 | 0 1 2 3 4 5 6 7 8<br>9 10 11 12 13 14<br>15 16 17 18 19 20<br>21 22 23 | 0 1 2 3 4 5 6 7 8<br>9 10 11 12 13 14<br>15 16 17 18 19 20<br>21 22 23 |
| 4.3      | Temperature at the start (°C)                         |  |  |   |  |  |
| 4.4      | Temperature at the end (°C)                           |  |  |   |  |  |
| 4.5      | Relative humidity at the start (%)                    |  |  |   |  |  |
| 4.6      | Relative humidity at the end (%)                      |  |  |   |  |  |
| 4.7      | Wind speed at the start (m/s)                         |  |  |   |  |  |
| 4.8      | Wind speed at the end (m/s)                           |  |  |   |  |  |
| 4.9      | Wind direction at the start                           | Variable /<br>N / N-E / E / S-E /<br>S / S-W / W / N-W                 | Variable /<br>N / N-E / E / S-E /<br>S / S-W / W / N-W                 | Variable /<br>N / N-E / E / S-E /<br>S / S-W / W / N-W              | Variable /<br>N / N-E / E / S-E /<br>S / S-W / W / N-W                 | Variable /<br>N / N-E / E / S-E /<br>S / S-W / W / N-W                 |
| 4.10     | Wind direction at the end                             | Variable /<br>N / N-E / E / S-E /<br>S / S-W / W / N-W                 | Variable /<br>N / N-E / E / S-E /<br>S / S-W / W / N-W                 | Variable /<br>N / N-E / E / S-E /<br>S / S-W / W / N-W              | Variable /<br>N / N-E / E / S-E /<br>S / S-W / W / N-W                 | Variable /<br>N / N-E / E / S-E /<br>S / S-W / W / N-W                 |
| 4.11     | Spray direction at the start                          | N / N-E / E / S-E /<br>S / S-W / W / N-W                               | N / N-E / E / S-E /<br>S / S-W / W / N-W                               | N / N-E / E / S-E /<br>S / S-W / W / N-W                            | N / N-E / E / S-E /<br>S / S-W / W / N-W                               | N / N-E / E / S-E /<br>S / S-W / W / N-W                               |
| 4.12     | Spray direction at the end                            | N / N-E / E / S-E /<br>S / S-W / W / N-W                               | N / N-E / E / S-E /<br>S / S-W / W / N-W                               | N / N-E / E / S-E /<br>S / S-W / W / N-W                            | N / N-E / E / S-E /<br>S / S-W / W / N-W                               | N / N-E / E / S-E /<br>S / S-W / W / N-W                               |
| <b>5</b> | <b>Locust information</b>                             | <b>1</b>   | <b>2</b>   | <b>3</b>  | <b>4</b>   | <b>5</b>   |
| 5.1*     | Type  | CIT/ DMA/ LMI/<br>CIT&DMA/<br>CIT&LMI/ Others/<br>Absent               | CIT/ DMA/ LMI/<br>CIT&DMA/<br>CIT&LMI/ Others/<br>Absent               | CIT/ DMA/ LMI/<br>CIT&DMA/ CIT&LMI/<br>Others/ Absent               | CIT/ DMA/ LMI/<br>CIT&DMA/<br>CIT&LMI/ Others/<br>Absent               | CIT/ DMA/ LMI/<br>CIT&DMA/<br>CIT&LMI/ Others/<br>Absent               |
| 5.2*     | Hopper stages   | Small/<br>Small & Medium/<br>Medium/ Large/<br>Mixed ages              | Small/<br>Small & Medium/<br>Medium/ Large/<br>Mixed ages              | Small/<br>Small & Medium/<br>Medium/ Large/ Mixed<br>ages           | Small/<br>Small & Medium/<br>Medium/ Large/<br>Mixed ages              | Small/<br>Small & Medium/<br>Medium/ Large/<br>Mixed ages              |
| 5.3*     | Imago   | YES NO   | YES NO   | YES NO  | YES NO   | YES NO   |
| 5.4*     | Density (/m2)   |  |  |   |  |  |
| 5.5*     | Hopper bands  | YES NO   | YES NO   | YES NO  | YES NO   | YES NO   |
| 5.6*     | Swarms  | YES NO   | YES NO   | YES NO  | YES NO   | YES NO   |
| 5.7*     | Scattered   | YES NO   | YES NO   | YES NO  | YES NO   | YES NO   |
| 5.8      | Appearance  | Solitary/ <i>Transiens</i> /<br>Gregarious                             | Solitary/ <i>Transiens</i> /G<br>regarious                             | Solitary/ <i>Transiens</i> /Greg<br>regarious                       | Solitary/ <i>Transiens</i> /G<br>regarious                             | Solitary/ <i>Transiens</i> /<br>Gregarious                             |

| 6     | Spray application  | 1   | 2   | 3  | 4   | 5   |
|-------|--|---|---|--|---|---|
| 6.1*  | Spray platform   | Aerial/ Vehicle/<br>Person  | Aerial/ Vehicle/<br>Person  | Aerial/ Vehicle/ Person  | Aerial/ Vehicle/<br>Person  | Aerial/ Vehicle/<br>Person  |
| 6.2   | Aerial   | Plane/ Helicopter/<br>Deltaplane  | Plane/ Helicopter/<br>Deltaplane  | Plane/ Helicopter/<br>Deltaplane   | Plane/ Helicopter/<br>Deltaplane  | Plane/ Helicopter/<br>Deltaplane  |
| 6.3   | Ground   | Tractor/ Vehicle<br>ULV/<br>Aerosol G   | Tractor/ Vehicle<br>ULV/<br>Aerosol G   | Tractor/ Vehicle ULV/<br>Aerosol G   | Tractor/ Vehicle<br>ULV/<br>Aerosol G   | Tractor/ Vehicle<br>ULV/<br>Aerosol G   |
| 6.4   | Person   | Knapsack<br>mechanical/<br>Knapsack electric/<br>Hand-held battery/<br>Hand-held manual | Knapsack<br>mechanical/<br>Knapsack electric/<br>Hand-held battery/<br>Hand-held manual | Knapsack mechanical/<br>Knapsack electric/<br>Hand-held battery/<br>Hand-held manual | Knapsack<br>mechanical/<br>Knapsack electric/<br>Hand-held battery/<br>Hand-held manual | Knapsack<br>mechanical/<br>Knapsack electric/<br>Hand-held battery/<br>Hand-held manual |
| 6.5   | Spray type   | Full volume/<br>Low volume/<br>Ultra-low volume   | Full volume/<br>Low volume/<br>Ultra-low volume   | Full volume/<br>Low volume/<br>Ultra-low volume                                      | Full volume/<br>Low volume/<br>Ultra-low volume   | Full volume/<br>Low volume/<br>Ultra-low volume   |
| 6.6   | Sprayer manufacturer   |   |   |  |   |   |
| 6.7   | Sprayer model  |   |   |  |   |   |
| 6.8   | Atomizer height above<br>ground (m)                                  |   |   |  |   |   |
| 6.9*  | Barriers   | YES NO  | YES NO  | YES NO   | YES NO  | YES NO  |
| 6.10  | Width (m)  |   |   |  |   |   |
| 6.11  | Spacing (m)  |   |   |  |   |   |
| 6.12* | Forward speed (km/h)   |   |   |  |   |   |
| 6.13  | Antenna DGPS used  | YES NO  | YES NO  | YES NO   | YES NO  | YES NO  |
| 6.14  | Ground marking   | GPS/ Flag/<br>Vehicle/No  | GPS/ Flag/<br>Vehicle/No  | GPS/ Flag/<br>Vehicle/No   | GPS/Flag/<br>Vehicle/No   | GPS/Flag/<br>Vehicle/No   |
| 7     | Control efficacy   | 1   | 2   | 3  | 4   | 5   |
| 7.1*  | Biological efficiency of<br>treatment (%)                            |   |   |  |   |   |
| 7.2*  | Time after treatment<br>(hours)                                      |   |   |  |   |   |
| 7.3   | Method of biological<br>efficiency estimation                        | Visual /<br>Accounting frame  | Visual /<br>Accounting frame  | Visual /<br>Accounting frame   | Visual /<br>Accounting frame  | Visual /<br>Accounting frame  |
| 8     | Safety and environment   | 1   | 2   | 3  | 4   | 5   |
| 8.1*  | Protective clothing  | Goggles/ Masks/<br>Gloves/ Overalls/<br>Caps/ Boots/ Absent                             | Goggles/ Masks/<br>Gloves/ Overalls/<br>Caps/ Boots/ Absent                             | Goggles/ Masks/ Gloves/<br>Overalls/ Caps/ Boots/<br>Absent                          | Goggles/ Masks/<br>Gloves/ Overalls/<br>Caps/ Boots/ Absent                             | Goggles/ Masks/<br>Gloves/ Overalls/<br>Caps/ Boots/ Absent                             |
| 8.2*  | Protective clothing clean<br>and in good state                       | YES NO  | YES NO  | YES NO   | YES NO  | YES NO  |
| 8.3*  | Operator accidentally<br>exposed to insecticide or<br>feeling unwell | YES NO  | YES NO  | YES NO   | YES NO  | YES NO  |
| 8.4   | If yes, describe what<br>happened                                    |   |   |  |   |   |
| 8.5   | Informed about spraying  | Farmer/Shepherd/<br>Beekeeper/Villager/<br>Official/Other                               | Farmer/Shepherd/<br>Beekeeper/Villager/Of<br>ficial/Other                               | Farmer/Shepherd/<br>Beekeeper/Villager/Offici<br>al/Other                            | Farmer/Shepherd/<br>Beekeeper/Villager/Of<br>ficial/Other                               | Farmer/Shepherd/<br>Beekeeper/Villager/O<br>fficial/Other                               |
| 8.6*  | Empty containers   | Triple rinsed/<br>Punctured/<br>Taken back to base/<br>Left in field/ Buried/<br>Burned | Triple rinsed/<br>Punctured/<br>Taken back to base/<br>Left in field/ Buried/<br>Burned | Triple rinsed/ Punctured/<br>Taken back to base/ Left<br>in field/ Buried/ Burned    | Triple rinsed/<br>Punctured/<br>Taken back to base/<br>Left in field/ Buried/<br>Burned | Triple rinsed/<br>Punctured/<br>Taken back to base/<br>Left in field/ Buried/<br>Burned |
| 8.7*  | Effect on non-target<br>organisms                                    | YES NO  | YES NO  | YES NO   | YES NO  | YES NO  |
| 8.8   | if yes, type of organisms<br>and effects (description)               |   |   |  |   |   |

|          |  |          |          |          |          |          |
|----------|--|----------|----------|----------|----------|----------|
| 8.9*     | Other environmental or health incident reported that might have been caused by the treatment | YES NO   | YES NO   | YES NO   | YES NO   | YES NO   |
| 8.10     | If yes, type of incident and reported by whom (description)                                  |          |          |          |          |          |
| <b>9</b> | <b>Comments</b>  | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
| 9.1      | <i>Indicate if pictures were taken and add any other appropriate comments</i>                |          |          |          |          |          |