## PEST & NATURAL ENEMY SCOUTING FORM FOR HIGH TUNNEL CROPS

| DATE: | TUNNEL: | CROP STAGE:  | SCOUT: |
|-------|---------|--|--------|
|       |         | (i.e. early vegetative vegetative flowering early fruting mature fruiting) |        |

Divide the plant (sample unit) into 3 levels or areas (lower, middle, high vs. outer, middle, and center). In each area, randomly select 3 leaves to visually inspect and record the overall number.

| Company   Comp |             |                |    | # PESTS |  |   |          |                    |              |            |             | # N.   | ATURAL E |        |     |     |  | ì  |  |          |                   |          |
|--|-------------|----------------|----|---------|--|---|----------|--------------------|--------------|------------|-------------|--|----------|--------|-----|-----|--|--|--|----------|-------------------|----------|
| 1 1 2 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4  | ROW/BED     | CROP & VARIETY |    | АРН     |  |   | SM       | PARA<br>WASP<br>AD | APH<br>MUMMY | PARA<br>WF | PRED<br>FLY | FLY  | BEETLE   | BEETLE | BUG | BUG | PRED<br>MITE                                     | DISEASE SYMPTOMS                                 | ОТН  | ER       | DAMAGE<br>RATING* | COMMENTS |
| 1  |             |                |    |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | l        |
| 1  |             |                |    |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | ł        |
| 1  |             |                | 3  |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | ł        |
| 2  |             |                | 4  |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | Í        |
| 2  | 4           |                | 5  |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | ł        |
| 2  | 1           |                |    |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | ĺ        |
| 8 9 9 10 1 1 2 2 3 3 4 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5   |             |                |    |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | ĺ        |
| 2  |             |                |    |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | ł        |
| 2  |             |                |    |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | ł        |
| 2   1   2   3   4   5   5   6   7   7   8   9   9   9   9   9   9   9   9   9  |             |                |    |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | ł        |
| 2 2 3 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  |             |                |    |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | ł        |
| 2  |             |                |    |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | ĺ        |
| 2   4  |             |                |    |         |  |   | 1        |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | ĺ        |
| 2   5  |             |                |    |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | ł        |
| 8   9   10   1   1   2   1   1   1   1   1   1   1   |             |                |    |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | ĺ        |
| 3 4 4 5 6 7 7 7 8 9 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  | 2           |                |    |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | ł        |
| 8 9 10 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  |             |                |    |         |  |   |          |                    |              |            |             |  |          | ļ      |     |     |  |  | <u> </u>   |          |                   | l        |
| 3   9   10   1   1   1   1   1   1   1   1   |             |                |    |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  | Ь—   | <u> </u> |                   | l        |
| 10   |             |                |    | ļ       |  |   |          |                    |              |            |             | ļ  |          | ļ      |     |     | ļ  |  |  |          |                   | i        |
| 1 1 2 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4  |             |                |    |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | l        |
| 3   2   3   4   4   6   6   6   7   8   9   9   9   9   9   9   9   9   9  |             |                |    |         |  |   |          |                    |              |            |             |  |          |        |     |     | ]  |  |  |          |                   | i        |
| 3   3   4   9   9   9   9   9   9   9   9   9  | 1           |                |    |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | i        |
| 3   3   4   9   9   9   9   9   9   9   9   9  |             |                | 2  |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | l        |
| 3  |             |                |    |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | ĺ        |
| 3  |             |                | 4  |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | ł        |
| 4  4  4  5  6  7  8  9  10  11  2  3  4  4  6  7  8  9  10  10  10  10  10  10  10  10  10   | •           |                |    |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | ĺ        |
| 4  4  5  6  7  8  9  10  11  2  3  4  4  5  6  7  8  9  10  10  2  3  4  4  4  5  6  7  8  9  10  10  10  10  10  10  10  10  10   | 3           |                |    |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | ĺ        |
| 8 9 9 10 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  |             |                |    |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | ĺ        |
| 4 4 4 5 6 6 7 7 8 8 9 10 11 11 11 11 11 11 11 11 11 11 11 11   |             |                |    |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | ĺ        |
| 10   |             |                |    |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | ĺ        |
| 4   1   1   1   1   1   1   1   1   1  |             |                |    |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | ĺ        |
| 4    2   |             |                |    |         |  |   | 1        |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | ł        |
| 4  |             |                |    |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  | <u> </u> |                   | ł        |
| 4  |             |                |    |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | ł        |
| 5 6 7 7 8 9 9 1 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1   |             |                |    |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | ł        |
| 6  |             |                |    |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | ł        |
| 5  | 4           |                |    |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | ĺ        |
| 5   8   9   10   1   1   1   1   1   1   1   1   | -           |                |    |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   |          |
| 5  |             |                |    |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | ĺ        |
| 5  |             |                |    |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | ĺ        |
| 6  1   |             |                |    |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | ĺ        |
| 5  |             |                | 10 |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | ł        |
| 5  |             |                | 1  |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | ĺ        |
| 5  | 5           |                |    |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | l        |
| 6  |             |                |    |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | l        |
| 5 6 7 8 9 1 1 1 2 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1  |             |                |    |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | i        |
| 6  |             |                |    |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          | i                 |          |
| 6 TOTAL # AVERAGE #**  |             |                |    |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          | l                 |          |
| 6 E  |             |                | 1  |         |  | l | l        |                    |              |            |             | 1  | 1        |        |     |     |  | <del>                                     </del> |  |          | l                 |          |
| 6  |             |                |    |         |  |   | <b> </b> | <b> </b>           |              |            |             | 1  |          |        |     |     | 1  |  | <del>                                     </del> |          |                   | i        |
| 6  |             |                |    |         |  |   | <b> </b> | <b> </b>           |              |            |             | 1  |          |        |     |     | 1  |  | <del>                                     </del> |          |                   | i        |
| 6  |             |                |    | -       |  |   | <b> </b> | <u> </u>           |              |            |             | 1  | 1        | -      |     |     | 1  |  | $\vdash$   | <b>-</b> | 1                 | i        |
| 6  | <del></del> |                |    | -       |  |   | 1        | 1                  |              |            |             |  | -        | -      |     |     |  |  | <del></del>                                      | -        | 1                 | ł        |
| 6  | 6           |                |    |         |  |   |          |                    |              |            |             | <del>                                     </del> | -        | -      |     |     | <del>                                     </del> |  | <del>                                     </del> |          | 1                 | i        |
| 6  |             |                |    | -       |  |   | <b> </b> | <b> </b>           |              |            |             | 1  | -        | -      |     |     | 1  |  | ₩  |          | 1                 | i        |
| 6 5 6 7 8 9 1 10 10 10 10 10 10 10 10 10 10 10 10 1  |             |                |    | -       |  |   | <b> </b> | <b> </b>           |              |            |             | 1  | -        | -      |     |     | 1  |  | ₩  |          | 1                 | i        |
| 6 7 8 9 10 10 10 10 10 10 10 10 10 10 10 10 10   |             |                |    |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  | <u> </u>   |          |                   | l        |
| TOTAL # AVERAGE #**  |             |                |    |         |  |   | <u> </u> | <u> </u>           |              |            |             | ļ  |          |        |     |     |  |  | Ь—   | <u> </u> |                   | i        |
| 8 9 10 10 10 10 10 10 10 10 10 10 10 10 10   |             |                |    |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | ĺ        |
| 9 10 TOTAL # AVERAGE # **  |             |                |    |         |  |   |          |                    |              |            |             |  |          |        |     |     | ]  |  |  |          |                   | i        |
| 9 10 TOTAL # AVERAGE # **  |             |                | 8  |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | i        |
| 10 TOTAL # AVERAGE # **  |             |                | 9  |         |  |   | L        | L                  |              | $\Box$     |             |  |          |        |     |     |  |  |  | L        |                   | i        |
| TOTAL # AVERAGE # **   |             |                |    |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | i        |
| AVERAGE # **   | TOTAL #     |                |    |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | ĺ        |
|  |             | # **           |    |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | l        |
| % PLANIS INFESTED"."   |             |                |    |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | i        |
|  | % PLANTS    | INFESTED*      |    |         |  |   |          |                    |              |            |             |  |          |        |     |     |  |  |  |          |                   | 1        |

## KEY

\* Plant Damage Rating: (1) no damage; (2) light damage (slight deformation and stunting on 2-4 leaves); (3) moderate damage (slight deformation and stunting on all leaves); (4) heavy damage (significant deformation on 2-4 leaves); (5) Severe damage (significant deformation on all leaves, crop of reduced value); (6) Extreme damage (crop unsalable)

APH (Aphid) - THR (Thrips) - WF (Whitefly) - SM (Spider Mite) - PARA WASP AD (Aphid Parasitic Wasp Adult) - APH MUMMY (Aphid Mummy)

PRED BEETLE (Predatory Beetle) - PRED BUG (Predatory Bug) - PARA WF (Parasitized WF Nymph) - PRED FLY (Predatory Aphid Midge Adult or Syrphid Adult)

PRED FLY MAG (Predatory Fly Maggot) - PRED BEETLE AD (Predatory Beetle Adult) - PRED BEETLE LAR (Predatory Beetle Larvae)

PRED BUG AD (Predatory Bug Adult) - PRED BUG NYM (Predatory Bug Nymph) - PRED MITE (Predatory Mite)



<sup>\*\*</sup> AVERAGE = (Total number recorded / Total number of plants inspected)

<sup>\*\*\* %</sup> PLANTS INFESTED = (Total number infested plants / Total number of plants inspected) x 100