**ANNEX 8**

****

**PROJECT NAME:** AGROecological strategies for SUStainable

weed management in key European crops

**GRANT AGREEMENT NUMBER:** 101084084

PLEASE, **print this document**, sign it, and **send a copy** (scanned or picture) to: **adela@uvigo.gal**

**QUESTIONNAIRES FOR FARMERS - NUMBER:**

### Country:

**Partner:**

### Biogeographic region:

**CROPS (arable/ perennial/horticultural):**

# Section 1: Background

1. Age

|  |  |
| --- | --- |
| **Years old:** |  |

1. Gender

|  |  |  |
| --- | --- | --- |
| **No.** | **Gender** | **X** |
| 1 | Female |  |
| 2 | Male |  |
| 3 | Other |  |

1. What is your position on the farm:

|  |  |  |
| --- | --- | --- |
| **No.** | **Position** | **X** |
| 1 | Farm owner |  |
| 2 | Farmer’s spouse  |  |
| 3 | Farmer’s child |  |
| 4 | Other farmer’s family member  |  |
| 5 | Other (please fill) |  |

1. Do you have a successor?

|  |  |  |
| --- | --- | --- |
| **No.** | **Successor** | **X** |
| 1 | Yes |  |
| 2 | No |  |
| 3 | I do not know yet |  |

1. What is your education or training?

|  |  |  |
| --- | --- | --- |
| **No.** | **Education** | **X** |
| 1 | No formal education |  |
| 2 | Up to primary only |  |
| 3 | Up to secondary only |  |
| 4 | Technical or vocational training only |  |
| 5 | University Degree |  |
| 6 | Self-taught |  |

1. What is your education in farming

|  |  |  |
| --- | --- | --- |
| **No.** | **Education in farming** | **X** |
| 1 | No formal education in farming |  |
| 2 | Agricultural school |  |
| 3 | Participation in agriculture training |  |
| 4 | Other (please fill) |  |

1. Are you a member of the following organizations:

|  |  |  |
| --- | --- | --- |
| **No.** | **Membership** | **X** |
| 1 | member of a production/trade/processing/service cooperative |  |
| 2 | member of a cooperative bank/savings and credit union |  |
| 3 | member of the farmers' union |  |
| 4 | councillor |  |
| 5 | NGO |  |
| 6 | Other (please fill) |  |

1. Please tell us what your level of dedication is to farming activities, in terms of your total working time.

|  |  |  |
| --- | --- | --- |
| **No.** | **Farming time** | **X** |
| 1 | Exclusively farming |  |
| 2 | Farming >=50% of work time |  |
| 3 | Farming <50% of work time |  |
| 4 | Farming as a hobby |  |

1. How long have you been farming? *(Include years as a child helping at parent's farm)*

|  |  |
| --- | --- |
| **No. of Years:** |  |

1. How long current owner has been managing the farm?

|  |  |
| --- | --- |
| **No. of Years:** |  |

# Section 2: Description of farm, crops, and production

1. Which is the farming system/s you use? (multichoice)

|  |  |  |
| --- | --- | --- |
| **No.** | **Farming system** | **X** |
| 1 | conventional |  |
| 2 | organic |  |
| 3 | integrated production |  |

1. Have you joined any quality / certification schemes?

|  |  |  |
| --- | --- | --- |
| **No.** | **Joined any quality / certification scheme** | **X** |
| 1 | Yes |  |
| 2 | No |  |

If yes, which? *(Cross the right ones)*

|  |  |  |
| --- | --- | --- |
| **No.** | **Certification Schemes** | **X** |
| 1 | Organic |  |
| 2 | Integrated Production |  |
| 3 | Protected Designation of Origin (PDO) |  |
| 4 | Protected Geographical Indication (PGI) |  |
| 5 | Traditional Specialities Guaranteed (TSG) |  |
| 6 | Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| 7 | NO |  |

1. What is the total size of the farm?

|  |  |
| --- | --- |
| **Hectares:** |  |

1. What is the total UAA (Utilized Agricultural Area) of the farm?

|  |  |
| --- | --- |
| **Hectares:** |  |

1. How many plots (separate pieces of land) do you have?

|  |  |
| --- | --- |
| **Total No. of plots:** |  |

1. What percentage of the farmland area do you own? Do you rent? Do you use it without a formal rent agreement?

|  |  |  |
| --- | --- | --- |
| **No.** | **Land tenure** | **100%:** |
| 1 | Own | …………………% |
| 2 | Rent (with agreement) | …………………% |
| 3 | Use without formal rent agreement | …………………% |

1. What is the structure of the farmland according to soil classification?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. What kind of crops do you cultivate on the farm:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Crops** | **Area****(in ha)** | **Yield/Harvested crop****(in q)** | **Do you purchase the propagation material or create the propagation material by yourself? (Insert Prepare or Buy)** | **Pre-crop** | **% of yield for sale** | **Main sales channel:****1. cooperative/producer group****2. wholesale****3. commodity exchange****4. processing plant****5. private sale****6. other****(enter code number)** |
| **Arable crops** |
| 1 | Barley |   |   |  |  |   |   |
| 2 | Maize |   |   |  |  |   |   |
| 3 | Triticale |   |   |  |  |   |   |
| 4 | Wheat |   |   |  |  |   |   |
| 5 | Oats |   |   |  |  |   |   |
| 6 | Potato |   |   |  |  |   |   |
| 7 | Rapeseed |   |   |  |  |   |   |
| 8 | Soybean |   |   |  |  |   |   |
| 9 | Sunflower |   |   |  |  |   |   |
| 10 | Other (please fill) |   |   |  |  |   |   |
| **11** | **Area of arable crops on the farm:**  |   | X |  |  | X | X |
| **Perennial crops** |
| 12 | Almond |   |   |  |  |   |   |
| 13 | Apple |   |   |  |  |   |   |
| 14 | Apricot |   |   |  |  |   |   |
| 15 | Berry |   |   |  |  |   |   |
| 16 | Custard apple |   |   |  |  |   |   |
| 17 | Hazelnut |   |   |  |  |   |   |
| 18 | Olive |   |   |  |  |   |   |
| 19 | Orange |   |   |  |  |   |   |
| 20 | Peach |   |   |  |  |   |   |
| 21 | Persimmon |   |   |  |  |   |   |
| 22 | Pistachio |   |   |  |  |   |   |
| 23 | Vineyard |   |   |  |  |   |   |
| 24 | Other (please fill) |   |   |  |  |   |   |
| **25** | **Area of perennial crops on the farm:**  |   | X |  |  | X | X |
| **Horticultural crops** |
| 26 | Aromatic plants (Vinca, Rumex, Plantago) |   |   |  |  |   |   |
| 27 | Cabbage |   |   |  |  |   |   |
| 28 | Carrot |   |   |  |  |   |   |
| 29 | Lettuce |   |   |  |  |   |   |
| 30 | Melon  |   |   |  |  |   |   |
| 31 | Tomato |   |   |  |  |   |   |
| 32 | Zucchini |   |   |  |  |   |   |
| 33 | Other (please fill) |   |   |  |  |   |   |
| **34** | **Area of horticultural crops on the farm:**  |   | X |  |  | X | X |

1. Do you use irrigation?

|  |  |  |
| --- | --- | --- |
| **No** | **Irrigation** | **X** |
| 1 | Yes |  |
| 2 | No |  |

1. If so, what percentage of the total UAA of your farm is irrigated? What percentage is rain-fed?

|  |  |  |
| --- | --- | --- |
| **No.**  | **Area of UAA which is:** | **100%:** |
| 1 | Irrigated | ………………………% |
| 2 | Rain-fed | ………………………% |

1. How many livestock heads do you have on the farm?

|  |  |  |
| --- | --- | --- |
| **No.** | **Animals** | **How many animals do you have (in number of animals)** |
| 1 | Total cattle: |  |
| 2 | including dairy cows |  |
| 3 | Pigs |  |
| 4 | Sheep |  |
| 5 | Poultry |  |
| 6 | Horses |  |
| 7 | Other (please fill) |  |

# Section 3: Description of weed management practices implemented in farm

1. Which of indicated weed management practices do you implement on the farm:

|  |  |  |
| --- | --- | --- |
| **No.**  | **Weed management practices** | **X** |
| 1 | Cultural |  |
| 2 | Physical and Mechanical |  |
| 3 | Biological and Biotechnological  |  |
| 4 | Preventive |  |
| 5 | Chemical |  |
| 6 | Mix of listed practices (please fill) |  |

1. If you implement chemical weed management practices, please answer the following question, otherwise, go to question 32. Which is the way to apply herbicides at your farm?

|  |  |  |
| --- | --- | --- |
| No | Way of applied herbicides at your farm | X |
| 1 | Truck of tractor mounted sprayer |  |
| 2 | Manual spray  |  |
| 3 | Airplane |  |
| 4  | Other (please fill) |  |

1. In what part of your UAA, you use herbicides - …............% of UAA.
2. Indicate the sources from which you get information on methods of weed control

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Sources** | **Often** | **Rare** | **Never** |
| 1 | Private agriculture advisory entities |   |   |   |
| 2 | Government agriculture advisory centres  |   |   |   |
| 3 | Research and development companies |   |   |   |
| 4 | Universities/ Scientific institutes |   |   |   |
| 5 | Herbicide companies |   |   |   |
| 6 | Farm supply stores |   |   |   |
| 7 | NGO’s |   |   |   |
| 8 | Local government |   |   |   |
| 9 | Local leaders |  |  |  |
| 10 | Other farmers / neighbours  |   |   |   |
| 11 | Other sources ...................…… |   |   |   |

1. How often do you use the following communication channels to obtain information on weed control methods?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Communication channels** | **Often** | **Rare** | **Never** |
| 1 | Contact face to face  |   |   |   |
| 2 | Printed materials, agricultural magazines |   |   |   |
| 3 | Social media  |  |  |  |
| 4 | Other Internet channels  |   |   |   |
| 5 | Telephone consultations |   |   |   |
| 6 | Radio  |   |   |   |
| 7 | Mails |   |   |   |
| 8 | TV (advertisement) |  |  |  |
| 9 | Training |  |  |  |
| 10 | Other channels ............................. |  |  |  |

1. Rate the reasons why you use/could use AWMP on the farm. Use a scale of 1-5, where 1 - not important reason, 5 - very important reason.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **No.** |  **Reasons** | **1** | **2** | **3** | **4** | **5** |
| 1 | Confidence of success |   |   |   |   |   |
| 2 | Increasing crop profitability |   |   |   |   |   |
| 3 | Social responsibility |  |  |  |  |  |
| 4 | Farming philosophy |   |   |   |   |   |
| 5 | Avoiding penalties |   |   |   |   |   |
| 6 | Financial incentives (subsidies) |   |   |   |   |   |
| 7 | Personal beliefs |   |   |   |   |   |
| 8 | Time/effort/inconvenience |   |   |   |   |   |
| 9 | Required for certification of the production protocol / Demanded by consumers |  |  |  |  |  |
| 10 | Other (please fill) |  |  |  |  |  |

1. Rate the factors from which it depends on the possibility of implementing AWMP. Use a scale of 1-5, where 1 - not important reason, 5 - very important reason.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **No.**  | **Factors:** | **1** | **2** | **3** | **4** | **5** |
| 1 | Farm characteristics |   |   |   |   |   |
| 2 | Farm tenure |   |   |   |   |   |
| 3 | Effect on crop profitability |  |  |  |  |  |
| 4 | Finance (subsidies) |   |   |   |   |   |
| 5 | Knowledge/Skills |   |   |   |   |   |
| 6 | Resources e.g. Labour/machinery |   |   |   |   |   |
| 7 | Time-consuming procedures within the AWMP |   |   |   |   |   |
| 8 | Legal/regulatory constraints |   |   |   |   |  |
| 9 | Tradition of using those methods in the region |  |  |  |  |  |
| 10 | Required for certification of the production protocol / Demanded by consumers |  |  |  |  |  |
| 11 | AWMP are implemented by other farmers/local leaders |  |  |  |  |  |
| 12 | Other (please fill) |  |  |  |  |  |

1. Rate the reasons why farmers are reluctant to use AWMP as an alternative to herbicides on a scale of 1-5, where 1 - not important reason, 5 - very important reason

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Reasons:** | **1** | **2** | **3** | **4** | **5** |
| 1 | Lack of experience with the use of AWMP |  |  |  |  |  |
| 2 | Farmers in my area do not use AWMP |  |  |  |  |  |
| 3 | More complex and time-consuming management than with synthetic herbicides  |   |   |   |   |   |
| 4 | Non-chemical methods do not give the same results in each subsequent year of their use |   |   |   |   |   |
| 5 | Less effective than herbicides |   |   |   |   |   |
| 6 | Less profitable than herbicides |  |  |  |  |  |
| 7 | More expensive than herbicides for the level of control achieved |   |   |   |   |   |
| 8 | Higher demand for manpower |   |   |   |   |   |
| 9 | Lack of proper equipment or trained workers |   |   |   |   |   |
| 10 | Lack of skilled technical advice |  |  |  |  |  |
| 11 | Little visible evidence of immediate success |   |   |   |   |   |
| 12 | Risk for the advisor/consultant, so reluctance to recommend |   |   |   |   |   |
| 13 | Reluctance to engage in long-term strategies |   |   |   |   |   |
| 14 | Dependence on favorable weather (e.g. in the case of alternative crops or delayed sowing) |   |   |   |   |   |
| 15 | Low level of information about those methods among farmers |  |  |  |  |  |
| 16 | Lack of support from the government |  |  |  |  |  |
| 17 | Can be incompatible with other farming practices (explain) |  |  |  |  |  |
| 18 | Belief that other methods are better |  |  |  |  |  |
| 19 | Reluctance to change, to introduce novelties |  |  |  |  |  |
| 20 | Other (please fill) |  |  |  |  |  |

1. Rate the benefits which convinced you/could convince you to use AWMP on your farm. Use the scale of 1-5, where 1 - not important reason, 5 - very important reason.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Benefits:** | **1** | **2** | **3** | **4** | **5** |
| 1 | Higher crop quality |   |   |   |   |   |
| 2 | Lower costs of AWMP compared to other methods |   |   |   |   |   |
| 3 | Higher crop profitability |  |  |  |  |  |
| 4 | Availability and use of appropriate equipment |   |   |   |   |   |
| 5 | The possibility of using surplus labor on the farm |   |   |   |   |   |
| 6 | Consumers looking for products manufactured with the use of AWMP |   |   |   |   |   |
| 7 | Believing that I'm doing the right thing |   |   |   |   |   |
| 8 | Production mainly for own needs |   |   |   |   |   |
| 9 | Payments for using AWMP |   |   |   |   |   |
| 10 | Eco trends |  |  |  |  |  |
| 11 | Information campaign about AWMP |  |  |  |  |  |
| 12 | Trainings about AWMP |  |  |  |  |  |
| 13 | Other (please fill) |   |   |   |   |  |

## For the following questions answer just the section/s related to your type of crop/s (arable, perennial, or horticultural):

## Section 3.1: Arable crops

1. Which of listed below agroecological weed management practices: (1) you have never heard about it, (2) you have only heard about it, (3) you have used them in the past or (4) you use it now **in reference to arable crops**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **AWMP** | **I have never heard about it** | **I only heard about it, but never used it** | **I used it in the past and now I don't use it anymore** | **I use it now** |
| 1 | Inter-Row Cultivation  |  |   |   |   |
| 2 | Tillage (mechanical cultivation) |  |   |   |   |
| 3 | Mixed Cropping |  |   |   |   |
| 4 | Crop Rotation  |  |   |   |   |
| 5 | High Planting Densities  |  |   |   |   |
| 6 | Competitive cultivars  |  |   |   |   |
| 7 | Qualitative seed material  |  |   |   |   |
| 8 | Hand Weeding  |  |   |   |   |
| 9 | Cover Crop or Mulches  |  |   |   |   |
| 10 | Special Planting Date  |  |   |   |  |
| 11 | Narrow Rows  |  |  |  |  |
| 12 | Weed Maps  |  |  |  |  |
| 13 | Soil cover and flame weeding |  |  |  |  |
| 14 | Mowing, grazing |  |  |  |  |
| 15 | Other (please fill) |  |  |  |  |

1. Which are the most problematic weeds for your **arable crops (indicate 2-3 for each crop type)?**

|  |  |  |
| --- | --- | --- |
| **No.** | **Arable crop type** | **Most problematic weeds** |
| 1 | Winter narrow row |  |
| 2 | Winter wide row |  |
| 3 | Spring narrow row |  |
| 4 | Spring wide row |  |

1. Which are frequently used herbicides in your farm for **arable crops**?

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **Arable crop type** | **Herbicides** | **Area of arable crops, where you use those herbicides** |
| 1 | Winter narrow row |  |  |
| 2 | Winter wide row |  |  |
| 3 | Spring narrow row |  |  |
| 4 | Spring wide row |  |  |

## Section 3.2: Perennial crops

1. Which of listed below agroecological weed management practices: (1) you have never heard about it, (2) you have only heard about it, (3) you have used them in the past or (4) you use it now **in reference to perennial crops**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **AWMP** | **I have never heard about it** | **I only heard about it, but never used it** | **I used it in the past and now I don't use it anymore** | **I use it now** |
| 1 | Tillage (mechanical cultivation) |  |   |   |   |
| 2 | Mowing |  |   |   |   |
| 3 | Inert mulches |  |   |   |   |
| 4 | Living mulches |  |   |   |   |
| 5 | Permanent cover crops |  |   |   |   |
| 6 | Temporal cover crops |  |   |   |   |
| 7 | Combined systems (eg. Swiss Sandwich System) |  |   |   |   |
| 8 | Grazing |  |   |   |   |
| 9 | Intercrops |  |   |   |   |
| 10 | Weed covers |  |   |   |  |
| 11 | Bioherbicides  |  |  |  |  |
| 12 | Thermal weed control |  |  |  |  |
| 13 | Other (please fill) |  |  |  |  |

1. Which are the most problematic weeds for your **perennial crops (indicate 2-3 to each crop type)?**

|  |  |  |
| --- | --- | --- |
| **No.** | **Perennial crop species** | **Most problematic weeds** |
| 1 | ………… |  |
| 2 | …………… |  |
| 3 | ………………… |  |
| 4 | ……………… |  |

1. Which are the frequently used herbicides in your farm for **perennial crops**?

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **Perennial crop species** | **Herbicides** | **Area of perennial crops, where you use those herbicides** |
| 1 | ………… |  |  |
| 2 | …………… |  |  |
| 3 | ………………… |  |  |
| 4 | ……………… |  |  |

## Section 3.3: Horticultural crops

1. Which of listed below agroecological weed management practices: (1) you have never heard about it, (2) you have only heard about it, (3) you have used them in the past or (4) you use it now **in reference to Horticultural crops**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **AWMP** | **I have never heard about it** | **I only heard about it, but never used it** | **I used it in the past and now I don't use it anymore** | **I use it now** |
| 1 | Crop rotation |  |   |   |   |
| 2 | Living mulch  |  |   |   |   |
| 3 | Mechanical cultivation (tillage) |  |   |   |   |
| 4 | Roller-crimper |  |  |  |  |
| 5 | Agroecological service crops  |  |   |   |   |
| 6 | Biological weed control |  |   |   |   |
| 7 | Weed flaming |  |   |   |   |
| 8 | Intercropping |  |   |   |  |
| 9 | Cover crops (e.g. winter) |  |  |  |  |
| 10 | Other (please fill) |  |  |  |  |

1. Which are the most problematic weeds for your **Horticultural crops (indicate 2-3 to each crop type)?**

|  |  |  |
| --- | --- | --- |
| **No.** | **Horticultural crop species** | **Most problematic weeds** |
| 1 | ………… |  |
| 2 | …………… |  |
| 3 | ………………… |  |
| 4 | ……………… |  |

1. Which are frequently used herbicides in your farm for **Horticultural crops**?

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **Horticultural crop species** | **Herbicides** | **Area of crops, where you use those herbicides** |
| 1 | ………… |  |  |
| 2 | …………… |  |  |
| 3 | ………………… |  |  |
| 4 | ……………… |  |  |

# Section 4: Profitability of AWMP

1. Indicate if you consider that the agroecological weed management practices listed below are less, equal, or more profitable than using herbicides (mark the option that best suits your belief for each AWMP)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **AWMP** | **Less profitable than using herbicides** | **Equally profitable than using herbicides** | **More profitable than using herbicides but only on the long run** | **More profitable than using herbicides** |
| 1 | Inter-Row Cultivation  |  |   |   |   |
| 2 | Tillage (mechanical cultivation) |  |   |   |   |
| 3 | Mixed Cropping |  |   |   |   |
| 4 | Crop Rotation  |  |   |   |   |
| 5 | High Planting Densities  |  |   |   |   |
| 6 | Competitive cultivars  |  |   |   |   |
| 7 | Qualitative seed material  |  |   |   |   |
| 8 | Hand Weeding  |  |   |   |   |
| 9 | Cover Crop or Mulches  |  |   |   |   |
| 10 | Special Planting Date  |  |   |   |  |
| 11 | Narrow Rows  |  |  |  |  |
| 12 | Weed Maps  |  |  |  |  |
| 13 | Soil cover and flame weeding |  |  |  |  |
| 14 | Mowing, grazing |  |  |  |  |
| 15 | Other (please fill) |  |  |  |  |

1. What are sources of income in your household:

|  |  |  |
| --- | --- | --- |
| **No.** | **Source of income** | **%** |
| 1 | Farm activity |  |
| 2 | Work outside of agriculture |  |
| 3 | Social benefits (retirement, disability, etc.) |  |
| Total: | 100% |
| 4 | Refuse to answer |  |

1. What are sources of income in your farm activity:

|  |  |  |
| --- | --- | --- |
| **No.** | **Source of income** | **%** |
| 1 | Plant production |  |
| 2 | Animal production |  |
| 3 | Services related to farm activity (for example services, agritourism) |  |
| 4 | Payments from CAP |  |
| 5 | Other (please fill) |  |
| Total: | 100% |

1. Taking under consideration all costs in your farm activity, what share of those costs stand cost of weeds control:
2. Herbicides methods …................................% of all costs
3. AWMP …...................................................% of all costs
4. I do not know.
5. Do you have data on the following:

|  |  |  |  |
| --- | --- | --- | --- |
|  **No.** | **Parameter** | **YES (data available)** | **NO (no data available)** |
| 1 | Pre-crop |   |   |
| 2 | Area per crops |   |   |
| 3 | Parcel logbook (field registry)  |   |   |
| 4 | Brand and type of machines used |   |   |
| 5 | Average fuel consumption per ha of machines used |   |   |
| 6 | Type of fertilizers used (eg. solid manure, liquid manure, chemical fertilizer)  |   |   |
| 7 | Amount of fertilizers used |   |   |
| 8 | Name or active agent of pesticides used |   |   |
| 9 | Amount of pesticides used |   |   |