**DARE Report 2021**

**Technology Assessment**

Technology assessment is among the core activities of KVKs, mainly for identifying the location specificity of agricultural technologies developed by National Agricultural Research System (NARS) under varied farming systems. The details of technologies assessed in different thematic areas of crops, livestock, enterprises and women empowerment are discussed here.

**Crops**: The KVKs assessed a total of 5,222 technologies of various crops at 12,015 locations through implementation of 25,843 trails on the farmers’ field under different thematic areas, namely cropping systems, drudgery reduction, farm machineries, integrated crop management, integrated disease management, integrated nutrient management, integrated pest management, integrated weed management, processing and value addition, resource conservation, seeds and planting material production, storage techniques, and varietal assessment for cereals, pulses, oilseeds, fruits, vegetable and commercial crops. Varietal evaluation was the major theme of technology assessment with 1,476 technologies assessed through 6,680 trials. Integrated Nutrient Management (787 technologies, 3,998 trials, 1,671 locations) and Integrated Pest Management (766 technologies, 3,919 trials, 1,449 locations) were the other major thematic areas on which technology assessment was carried out.

**Livestock**: A total of 873 technological interventions were assessed by KVKs in 3,204 locations through 6,646 trials covering thematic areas such as animal disease management, evaluation of breeds, feed and fodder management, nutrition management, livestock production management, as well as processing and value addition. Nutrition Management was the major thematic area with 220 technologies and 1959 trials at 576 locations. All the major livestock species like cows, buffalo, sheep, goat, poultry, pig and fish were covered under the technology assessment.

**Other enterprises**: KVKs tested 364 technologies at 1,222 locations through 2,247 trials under other enterprises involving mechanization, processing and value-addition, drudgery reduction, small-scale income generation, nursery raising, resource conservation, storage techniques, fish production and management, household food security and health and nutrition. Mechanization in farm management was the major thematic area with 122 technologies assessed in 98 locations through 682 trials. Entrepreneurship development was the prime focus of all the technologies assessed.

**Women empowerment**: As part of technology assessment, 299 technologies related to farm women were assessed through 2,077 trials at 579 locations. Health and nutrition (technologies 84, trials 513, locations 89) and drudgery reduction (technologies 67, trials 489, locations 58) were the major technologies assessed with an aim to promote women empowerment.

**Technologies assessed under various crops by KVKs (Crop Production)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl.** | **Thematic areas** | **Number of the technologies (Technology Interventions)**  | **No. of trials**  | **No. of KVKs** | **No. of Locations** |
| **1** | INM | 787 | 3998 | 509 | 1671 |
| **2** | Varietal Evaluation  | 1476 | 6680 | 736 | 2816 |
| **3** | IPM | 766 | 3919 | 509 | 1449 |
| **4** | ICM | 469 | 2377 | 281 | 1031 |
| **5** | IDM | 407 | 1980 | 285 | 768 |
| **6** | Small Scale Income Generation Enterprises  | 25 | 115 | 16 | 112 |
| **7** | Weed Management  | 261 | 1523 | 219 | 458 |
| **8** | Resource Conservation Technology  | 250 | 1037 | 210 | 501 |
| **9** | Farm Machineries  | 92 | 615 | 90 | 181 |
| **10** | Integrated Farming System  | 32 | 152 | 43 | 76 |
| **11** | Seed / Plant production  | 26 | 176 | 35 | 203 |
| **12** | PHT / Value addition  | 72 | 383 | 59 | 266 |
| **13** | Drudgery Reduction  | 50 | 281 | 53 | 109 |
| **14** | Storage Technique  | 26 | 206 | 25 | 101 |
| **15** | Others (Pl. specify) | 63 | 555 | 48 | 243 |
| **16** | Cropping Systems | 54 | 198 | 37 | 148 |
| **17** | Farm Mechanization | 24 | 56 | 13 | 50 |
| **18** | Water management | 14 | 47 | 13 | 20 |
| **19** | Mushroom cultivation | 10 | 47 | 15 | 46 |
| **20** | Value addition | 35 | 163 | 63 | 240 |
| **21** | Soil health management | 25 | 103 | 20 | 47 |
| **22** | Biological control | 53 | 359 | 41 | 66 |
| **23** | Benchmark survey (PRA) | 6 | 12 | 4 | 8 |
| **24** | Crop Management | 19 | 26 | 9 | 21 |
| **27** | Feed and Fodder Management | 10 | 57 | 10 | 9 |
| **28** | Kitchen Gardening | 16 | 18 | 2 | 17 |
| **30** | Intercropping | 13 | 70 | 10 | 2 |
| **31** | Plasticulture | 1 | 5 | 1 | 5 |
| **32** | Soil organism (beneficial) | 1 | 3 | 1 | 3 |
| **33** | Storage | 6 | 20 | 2 | 20 |
| **34** | Water purification | 1 | 3 | 1 | 3 |
| **35** | Impact Assessment  | 2 | 105 | 1 | 20 |
| **36** | Situational Analysis  | 1 | 3 | 1 | 8 |
| **37** | Nutrient Management | 5 | 9 | 2 | 5 |
| **39** | Chemical Control | 1 | 5 | 1 | 1 |
| **40** | Others  | 99 | 452 | 124 | 1209 |
| **41** | Crop Production | 13 | 46 | 8 | 41 |
| **42** | Production Technology | 8 | 31 | 6 | 15 |
| **43** | Canopy Management | 1 | 2 | 2 | 20 |
| **44** | Protected Cultivation | 1 | 3 | 2 | 3 |
| **45** | Fertigation Technique | 1 | 3 | 2 | 3 |
|  | **Total** | 5222 | 25843 |  | 12015 |

**Technologies assessed under livestock by KVKs**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl.** | **Thematic areas** | **Number of the technologies (Technology Interventions)**  | **No. of trials**  | **No. of KVKs** | **No. of Locations** |
| **1** | Disease Management  | 118 | 1123 | 110 | 407 |
| **2** | Evaluation of Breeds  | 110 | 717 | 125 | 366 |
| **3** | Feed and Fodder management  | 166 | 1024 | 147 | 511 |
| **4** | Nutrition Management  | 220 | 1959 | 206 | 576 |
| **5** | Production and Management  | 121 | 1102 | 148 | 801 |
| **6** | Processing and value addition | 13 | 83 | 10 | 52 |
| **7** | Fish Production | 34 | 120 | 71 | 125 |
| **8** | Breed introduction | 33 | 239 | 25 | 105 |
| **9** | Breed Management | 6 | 47 | 4 | 30 |
| **10** | Small scale income generating enterprises | 8 | 22 | 7 | 22 |
| **11** | Others (Pl. specify) | 18 | 68 | 31 | 62 |
| **12** | Pond management | 1 | 2 | 1 | 1 |
| **13** | Culture system management (Biofloc) | 2 | 5 | 2 | 5 |
| **14** | Integrated Farming System | 5 | 18 | 17 | 18 |
| **15** | Value Addition | 2 | 4 | 4 | 107 |
| **16** | Poultry Production and management | 16 | 113 | 16 | 16 |
|  | **Total** | 873 | 6646 | 924 | 3204 |

T**echnologies assessed under various enterprises by KVKs**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl.** | **Thematic areas** | **Number of the technologies (Technology Interventions)**  | **No. of trials**  | **No. of KVKs** | **No. of Locations** |
| **1** | Drudgery reduction | 21 | 226 | 23 | 88 |
| **2** | Entrepreneurship Development  | 8 | 31 | 7 | 39 |
| **3** | Health and nutrition | 11 | 86 | 27 | 60 |
| **4** | Processing and value addition | 57 | 326 | 58 | 126 |
| **5** | Energy conservation | 0 | 0 | 0 | 0 |
| **6** | Small-scale income generation | 20 | 100 | 16 | 85 |
| **7** | Storage techniques | 14 | 140 | 12 | 21 |
| **8** | Household food security | 12 | 67 | 17 | 12 |
| **9** | Organic farming | 1 | 4 | 1 | 3 |
| **10** | Agroforestry management | 2 | 14 | 2 | 14 |
| **11** | Mechanization | 122 | 682 | 71 | 98 |
| **12** | Resource conservation technology | 15 | 67 | 10 | 21 |
| **13** | Value Addition  | 5 | 42 | 23 | 40 |
| **14** | Others | 27 | 240 | 24 | 548 |
| **15** | Mushroom Cultivation | 5 | 30 | 5 | 22 |
| **16** | Nursery raising | 18 | 86 | 15 | 21 |
| **17** | Bee keeping | 0 | 0 | 0 | 0 |
| **18** | Vermicomposting | 1 | 7 | 1 | 3 |
| **19** | Fish Nutrition | 5 | 18 | 4 | 4 |
| **20** | Fish Production & Management | 12 | 45 | 9 | 9 |
| **21** | Fish seed production | 2 | 8 | 2 | 2 |
| **22** | Composite fish farming | 2 | 8 | 2 | 2 |
| **23** | Post Harvest Management | 4 | 20 | 4 | 4 |
|  | **Total** | 364 | 2247 | 333 | 1222 |

T**echnologies assessed under various enterprises for women empowerment**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl.** | **Thematic areas** | **Number of the technologies (Technology Interventions)**  | **No. of trials**  | **No. of KVKs** | **No. of Locations** |
| **1** | Drudgery Reduction | 67 | 489 | 49 | 58 |
| **2** | Entrepreneurship Development  | 50 | 339 | 28 | 19 |
| **3** | Health and Nutrition  | 84 | 513 | 60 | 89 |
| **4** | Value Addition  | 59 | 242 | 44 | 210 |
| **5** | Others | 18 | 170 | 18 | 170 |
| **6** | Others (Social Media) | 1 | 45 | 1 | 3 |
| **7** | Organic dye utilization and introduction | 2 | 8 | 2 | 8 |
| **8** | Kitchen Gardening | 18 | 271 | 14 | 22 |
|  | **Total** | 299 | 2077 | 216 | 579 |