***Experimental Results***

**Productive Efficiency of Traditional Multiple Cropping Systems Compared to Monocultures of Seven Crop Species: A Benchmark Study**

Debal Deb

**Supplementary Materials**

**Table S1**: Food Production per Plant in SC Farms.

|  |  |
| --- | --- |
| **Productivity (kg/Plant)** | **Farm Replications: Sole Crop Plots** |
| **Crop** | **SC-1** | **SC-2** | **SC-3** | **SC-4** | **SC-5** | **SC-6** | **SC-7** | **SC-8** |
| Brinjal | 1.34 | 1.521 | 1.801 | 0.446 | 0.389 | 0.955 | 0.318 | 0.243 |
| Okra | 0.521 | 0.463 | 0.454 | 0.060 | 0.228 | 0.335 | 0.315 | 0.223 |
| Finger Millet | 0.819 | 0.802 | 0.809 | 0.9005 | 0.767 | 0.832 | 1.032 | 0.604 |
| Rice | 0.086 | 0.036 | 0.160 | 0.079 | 0.203 | 0.101 | 0.155 | 0.101 |
| Little Millet | 0.102 | 0.030 | 0.103 | 0.050 | 0.099 | 0.156 | 0.192 | 0.122 |
| Green Amaranth | 0.286 | 0.503 | 0.505 | 0.167 | 0.199 | 0.228 | 0.548 | 0.369 |
| Red Amaranth | 0.257 | 0.639 | 0.316 | 0.203 | 0.262 | 0.300 | 0.301 | 0.422 |

**Table S2**: Food Production in Multi-Crop Farms, Design *A* (Row Cropping).

|  |  |
| --- | --- |
| **Productivity (kg/Plant)** | **Farm Replications, Design *A*** |
| **Crop** | **A-1** | **A-2** | **A-3** | **A-4** | **A-5** | **A-6** | **A-7** | **A-8** |
| Brinjal | 0.569 | 0.000 | 0.964 | 0.305 | 0.115 | 0.262 | 0.162 | 0.000 |
| Okra | 0.311 | 0.230 | 0.282 | 0.017 | 0.060 | 0.167 | 0.106 | 0.116 |
| Finger Millet | 0.009 | 0.013 | 0.027 | 0.011 | 0.019 | 0.014 | 0.020 | 0.040 |
| Rice | 0.017 | 0.010 | 0.037 | 0.006 | 0.008 | 0.004 | 0.010 | 0.010 |
| Little Millet | 0.007 | 0.006 | 0.015 | 0.006 | 0.008 | 0.005 | 0.006 | 0.004 |
| Green Amaranth | 0.033 | 0.011 | 0.038 | 0.024 | 0.026 | 0.012 | 0.022 | 0.012 |
| Red Amaranth | 0.024 | 0.012 | 0.032 | 0.027 | 0.029 | 0.009 | 0.013 | 0.013 |

**Table S3**: Food Production in Mixed Crop Farms, Design *B*

|  |  |
| --- | --- |
| **Productivity (kg/Plant)** | **Farm Replications, Design *B*** |
| **Crop** | **B-1** | **B-2** | **B-3** | **B-4** | **B-5** | **B-6** | **B-7** | **B-8** |
| Brinjal | 0.702 | 0.593 | 0.779 | 0.446 | 0.067 | 0.276 | 0.213 | 0.174 |
| Okra | 0.348 | 0.310 | 0.225 | 0.024 | 0.069 | 0.225 | 0.209 | 0.154 |
| Finger Millet | 0.413 | 0.732 | 0.883 | 0.408 | 0.590 | 0.722 | 1.006 | 0.210 |
| Rice | 0.053 | 0.023 | 0.111 | 0.055 | 0.301 | 0.093 | 0.143 | 0.112 |
| Little Millet | 0.067 | 0.027 | 0.076 | 0.049 | 0.062 | 0.153 | 0.168 | 0.059 |
| Green Amaranth | 0.227 | 0.312 | 0.314 | 0.178 | 0.322 | 0.214 | 0.330 | 0.140 |
| Red Amaranth | 0.244 | 0.360 | 0.344 | 0.195 | 0.313 | 0.230 | 0.231 | 0.144 |

**Table S4**: Food Production in Mixed Crop Farms, Design *C*.

|  |  |
| --- | --- |
| **Productivity (kg/Plant)** | **Farm Replications, Design *C*** |
| **Crop** | **C1** | **C2** | **C3** | **C4** | **C5** | **C6** | **C7** | **C8** |
| Brinjal | 0.719 | 0.554 | 0.901 | 0.295 | 0.238 | 0.175 | 0.294 | 0.066 |
| Okra | 0.405 | 0.306 | 0.251 | 0.020 | 0.319 | 0.156 | 0.282 | 0.054 |
| Finger Millet | 1.007 | 1.011 | 0.713 | 0.390 | 0.610 | 0.325 | 0.957 | 0.231 |
| Rice | 0.080 | 0.032 | 0.105 | 0.062 | 0.131 | 0.145 | 0.140 | 0.095 |
| Little Millet | 0.098 | 0.035 | 0.110 | 0.071 | 0.100 | 0.122 | 0.163 | 0.141 |
| Green Amaranth | 0.298 | 0.370 | 0.381 | 0.224 | 0.164 | 0.320 | 0.311 | 0.205 |
| Red Amaranth | 0.300 | 0.312 | 0.325 | 0.209 | 0.206 | 0.351 | 0.251 | 0.148 |