Table 1- Row spacing and Plant Population

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Row SpacingInches | Pod yield per acre | seed yield per acre | pod # per acre | Moisture% |
|  |  |  |  |  |
| 30 | 2829 a | 643.5 a | 26939 a | 76.0 a |
| 15  | 3251 a | 645.1 a | 29768 a | 75.5 a |

Table 2- Date of Planting and seed size

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Treatments**  | **Pod Yield (lb/ac)** | **Seed Yield (lb/ac)** | **Pod #/ac** | **Moisture (%)** |
|  | **2014** | **2015** | **2014** | **2015** | **2014** | **2015** | **2014** | **2015** |
| **DOP** |  |  |  |  |  |  |  |  |
| Early | 2788a | 2654a | 545a | 978a | 23824a  | 23437a | 73a | - |
| Late | 1598b | 1645b | 518a | 554b | 14257b | 16548 b | 71a | - |
| **Seed Size Group** |  |  |  |  |  |  |  |  |
| Large  | 2867a | 2781a | 614a | 1056a | 39408a  | 34835a | 73a | - |
| Medium  | 2664a | 2537a | 552ab | 1008 a | 36638 a | 32414 a  | 72a | - |
| Small  | 1435b | 1327b | 422b |  490b | 28057b | 17888b  | 72a | - |
| Mixed  | 1805b | 1563b |  538ab |  569b | 31446b | 19906b | 73a | - |

Table 3- Variety Trial and Seed Size

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Treatment  Seed Variety | Seed Size(g/100 seeds) | PFW(lb/ac) | SFW(lb/ac) | Pod#/ac | Seed#/ac |
|  |  |  |  |  |  |
| Bell bean | 51 | 3328c | 1304de | 169365a | 411799a |
| Sweet lorane | 68 | 1831c | 467e | 57530cd | 105920d |
| Early white | 253 | 10582b | 3403c | 77424c | 192431c |
| Aquadulce | 265 | 15107a | 5952a | 116620b | 327923b |
| Early violletto | 280 | 12059ab | 4444bc | 80112c | 224207c |
| Windsor | 311 | 5144c | 1901d | 34948d | 111781d |
| Delle cascine | 335 | 15201a | 4713b | 72047c | 200012c |
| D’Aquadulce | 392 | 5549c | 1611de | 41400d | 65004d |

PFW= Pod Fresh Weight, SFW=Seed Fresh Weight

Table 4- Methods of Planting

|  |  |  |  |
| --- | --- | --- | --- |
| Planting method | DOP | Pod fresh wt. (lb/ac) | Seed fresh wt. (lb/ac) |
|  |  | 2014 | 2015 | 2014 | 2015 |
| Direct | March 30 | 6094ab  | 7052a | 1969ab | 2507ab |
| Transplant | Apr 15 | 6792a | 8329a  | 2484a | 3271a  |
| Apr 30 | 4759b | 6250a | 1741b | 1754b |

Table 5- Nitrogen Contribution of Fava bean to Succeeding Sweet corn

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Treatment | ME#/ac | MEFW (lb/ac) | EL (inch) | UE (%) |
|  | 2014 | 2015 | 2014 | 2015 | 2014 | 2015 | 2014 | 2015 |
| Fava bean planted on; |  |  |  |  |  |  |  |  |
| Aug/01 | 20969a  | 22421a | 120677a  | 106479a | 6.9a | 6.3a | 5.8a  | 11.1b  |
| Aug/08 | 20162b | 21292a | 113579a | 92283b | 6.9a | 6.1 a  | 7.2a | 16.4 a |
| Aug/16 | 19679c | 19679b | 99381b | 81635b | 7.1a |  6.0a  | 8.5 a | 18.3 a |
| N Rate + FB residue |  |  |  |  |  |  |  |  |
| 0 | 18549a | 15000 b | 88733 | 56789b | 6.9a | 6.1a | 10.0a | 16.4a |
| 25 | 20001a | 22098 a | 113579a | 99381a | 6.9 a | 5.8b | 7.2a | 17.2a |
| 50 | 21775a | 23388 a | 120677a | 106479a | 7.1a | 6.3a | 5.6 a | 14.3b |
| 75 | 21130a | 22259a | 117128a | 99381a | 7.0a | 6.2a | 7.1a | 14.5b |
| 100 | 19840a | 23227a | 113579a | 102931a | 7.0a | 6.2a | 8.6a | 16.1a |

ME#= Marketable ear number, MEFW=Marketable ear fresh weight, EL=ear length, UE%=unfilled ear %

Table 6- L-dopa concentration in fava beans plant parts

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|     | Seedling  | Root  | Stem  | Leaf  | Bud  | Seed  |
| Levodopa(mg g-1)   | 13.3a  | 6.5d  | 3.5e  | 10.5a  | 9.5b  |  7.2c  |

Table 7- L-dopa concentration in fava beans vegetative growth stages

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Bell bean  | Early Violletto  | Aquadulce  | Delle Cascine  | Windsor  | Sweet Lorane  | Early White  | D'Aqua-dulce  |
| (leaf #) | L-Dopa Concentration (mg g-1 ) |
| protrude  |  8.6c  |  7.8b  |  5.5 c | 10.5 ab |  3.3 c |  5.9 c | 10.6b  |  5.7d  |
| 2  | 15.0a  | 16.6a  | 10.5 a | 10.7 ab | 10.5 ab | 14.2 a | 13.6 a | 12.7b  |
| 4  | 16.7 a |  7.9 b | 12.5 a | 12.7 a | 12.5 a | 13.9 a | 13.5 a | 16.3 a |
| 6  | 11.3 b |  4.8 c |  9.1 b |  8.0 b |  9.2 b |  9.9 b |  8.8 c | 10.0 bc |
| 8  | 10.2 b |  6.5 bc |  9.2 b |  8.3 b | 10.3 ab |  8.6 b |  9.3 bc |  8.5 c |
| 10  |  9.8 bc |  5.6 bc |  8.9 b |  7.3 b | 10.1 ab |  8.5 b |  8.0 c |  7.4 cd |