Government of Tripura
DEPARTMENT OF AGRICULTURE

True Potato Seed (T.P.S.)
a revolution in potato cultivation

A Technical Bulletin from:
Horti. Research Complex, Nagicherra
Govt. of Tripura
Department of Agriculture
What is T.P.S.?
True Potato Seed is tiny botanical seeds of potato substitute a bulky seed tuber of potato, used as planting material for potato cultivation.

Why T.P.S.?
- 100 grams is sufficient to cover one hectare area instead of planting 2 to 2.5 tons of Potato seed tubers.
- Being hybrid capable of giving more production.
- Absolutely disease - free seed material.
- No cold storage facility is required for storing T.P.S.
- Practically no cost is involved for transporting T.P.S. unlike seed tuber.
- Net profit is more as cost of cultivation is less and as yield is more.
- The seed tubers being utilized could be otherwise used for consumption.

True Potato Seed
Cost of production of potato using T.P.S is approximately 55 percent less in comparison to cost of production of potato using seed tuber. At the same time production can be obtained up to the level of 35 ton per hectare.

TPS can be utilized by the following two methods-

A. Production of ware crop: TPS can be utilized for production of ware / table potato in the first year itself by transplanting method.

B. Production of seedling tuber / tuberlets: Farmers can also use TPS for production of small sized tubers (popularly known as tuberlet) in the first year for seed tuber purpose, which on storing can be utilized in the following season for production of ware potato.

A. PACKAGE & PRACTICES FOR PRODUCTION OF WARE POTATO USING T.P.S

Raising Seedling:
Seeds are sown at half cm depth in rows at 10 cm apart in raised nursery beds of 6 inches or 15 cm height prepared to good tilth with
finely powdered dry cowdung. Provide shade but remove at fifteenth day after sowing. Irrigate with fine rose cane and maintain uniform moisture level. Apply foliar spray 0.1% Urea solution from 15th day after sowing on alternate days till the seedlings are ready for transplanting (24th to 28th day) with 3 to 4 leaf stage. Care should be taken against pest and diseases, particularly against termites and damping off.

Cultivation in the main field:

Prepare the main field to a good tilth after labeling. Apply Organic Manure 20 to 25 ton and 75:100:150 kg. N:P:K per hectare.

Make ridges (6 inches or 15 cm height) and furrows at 50 to 60 cm. apart in East-West direction. Irrigate the furrows to 3 inches or 7.5 cm height. Transplant the seedling on the next day in the northern side of the ridges at half the height, 15 cm. apart so that the joint of the first cotyledon leaves go underneath the soil. Irrigate the field for quick establishment. On 30th day after transplanting undertake weeding and apply nitrogen at the rate 75
kg per hectare. Earthing-up is to be done in such a way that the plants come to the centre of the ridges. Provide irrigation as and when required. Undertake plant protection measures on need base particularly against termites before transplanting and for blights in the standing crop. Harvest the crop when matured.

**Seedling tuber**

Seedling tubers are small tubers up to 20 gm size used as seed tubers raised from hybrid TPS. Requirement of seed tubers could be brought down to one-third by using seedling tubers, which are popularly known as tuberlets. At the same time hybrid vigour can be exploited for yield as well as resistance to diseases etc.

**B. Package & Practices for production of seedling tubers using T.P.S**

Prepare beds of six inches height and one & half meter width of convenient length at 50 cm apart. Bring to good tilth mixing with finely powdered well rotten cowdung. Apply Urea, Single Super Phosphate & Murate of Potash @ 20 gm, 60 gm & 25gm per square meter respectively. In this system a double-row method is followed while sowing the seeds. Two to three seeds are sown at 0.5 cm depth 4 cm apart in a line and row to row distance is 10 cm. In between two double rows distance is 30 cm.
Top dressing with 5 gm. Urea per Square meter at 30th, 45th and 60th day followed by earthing up so that two lines can be covered by a single furrow and the distance between two double rows becomes a furrow to be utilized for irrigation.

Without making injury to the tubers. Discard any tubers which are cut or infected ones. Spread on a dry floor for further curing under diffused light condition. Rogue out any rotten tubers and spray with 3% Boric acid solution for disinfection. Dry the produce with the help of electric fan. Pack in new gunny bags and store preferably in cold store for the next year planting.

Withhold irrigation around 75th to 80th day after sowing. Cut the haulms at ground level after a week of withholding irrigation. Allow the crop for skin hardening for about seven days. Harvest with care.
Availability of TPS

TPS can be obtained on allotment by the authority by depositing the value of the seed at Rs 20/- per gram through Demand Draft in advance drawn in favour of the Senior Horticulturist, Horti. Research Complex, Nagicherra, Tripura (West), 799 004, payable at SBI, TLA House branch, Agartala. Sale rate of TPS is Rs 20,000/- per kilogram within India. Rate for abroad is 650 U.S. Dollar per kilogram excluding Central Excise Duty (CED), Freight charge etc.

For TPS contact:

1. **Director of Horticulture & Soil Conservation**
   Government of Tripura,
   P.O, Agartala, PIN-799 001, Tripura.
   Phone : 0381-232-2805/ 0381-232-4739
   FAX : 0381-232-4739;
   E-mail : dhctripura@yahoo.co.in

2. **General Manager, NERAMAC (For Abroad)**
   A. D. Nagar Industrial Estate
   P. O. : A. D. Nagar, Agartala, PIN - 799 003,
   West Tripura, India
   Phone : 0381-2371392, +91 9774601678 (Mobile)
   E-mail : neramac.agt@gmail.com
   Website : www.neramac.com

3. **Senior Horticulturist**
   Horticulture Research Complex.
   P. O. : Nagicherra, West Tripura.
   PIN - 799 004.
   Mobile : 9436127164 / 9436139794
   E-mail : hrc_nagicherra@rediffmail.com

Published by : Horti. Research Complex, Nagicherra, West Tripura and
Printed by : Sungraphics, Agartala, Phone : 232 8469