



Potato breeding

How is Potato Breeding Carried Out?



1. Selection of Parents

2. Fertilization

3. True Potato Seed



4. Young Seedlings

5. Evaluation Trials



6. New Variety

- Teagasc has been breeding potato since 1962
- To date, Teagasc has bred 45 varieties that have been marketed in more than 45 countries



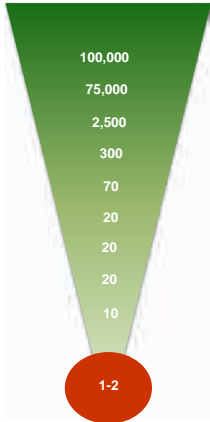
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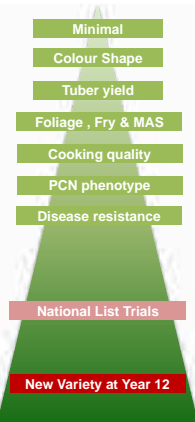
Potato breeding

How long does it take?

Seedling Numbers



Phenotyping Effort



Where do we trial?



What traits are we improving?

- Yield & Adaptation
- Disease resistance
- Cooking quality
- Fry colour



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Rooster Why it's the nations favourite

For Producers



- Suited to Irish Conditions
- High yield for growers
- Excellent all year storage
- Good disease resistance

For Consumers

- Distinctive red skin
- Excellent taste and texture
- Superb versatility, boil, mash, roast, wedges, chips
- Shallow eyes and uniform shape
- Unique and recognisable name



Where did Rooster get its name?

“The story goes that a grower once gave a woman some red skin potatoes left over from a trial. She came back for more and asked what their name was. He hesitated, looked out the window and saw a rooster and just said the first thing that came into his mind. The name stuck!” Harry Kehoe, Potato Breeder



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Bred in Carlow by Teagasc Marketed Worldwide by IPM Potato Group

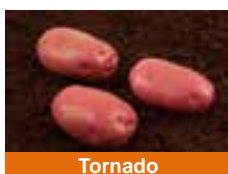
Irish bred potatoes grown on every continent



Potatoes have names too



Nectar



Tornado



Electra



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How do you like your spuds?

Crisps and chips

- Irish consumer likes a light yellow colour
- Industry wants potatoes that will provide this after many months in storage



Waxy or Floury?

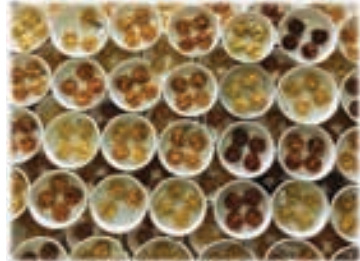
We evaluate

- Taste
- Structure
- Colour
- Blackening
- Mealiness
- Dry Matter



What determines crisp and chip colour?

- Storage at low temperature causes starch to break down into sugar
- High sugar levels => dark fry colour
- Resistance to “**low temperature sweetening**” is an important trait



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