

The OTC is pleased to announce
UC Cowpeas by Drs. Philip
Roberts and Jeff Ehlers



Blackeyes are only one type of Cowpea — others include:

- Other Colored Cowpeas-pinkeyes, crowders, field and cream peas
- Asian ‘Long beans’ – aka asparagus beans
- Short-podded, Bush versions of ‘Asian Long Bean’-fresh and frozen green beans
- Dry-Green Blackeyes-rehydrated frozen
- All-white ‘Blackeye’-rehydrated frozen, flour

**New UCR Bush-Type
‘Long beans’**

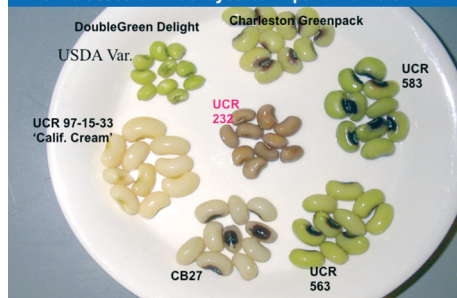
- No need for staking-shorter pods held off of ground
- Highly productive (10,000 lbs/ac single pick, 20,000 lbs/ac over 4 pickings, and 30,000 lbs/ac over 6 pickings)
- Very early maturity (55 days to 1st pick)
- Amenable for ‘once-over’ mechanical harvest or multiple hand picks
- Market potential for shorter Long Bean unknown
- Consumer pod color/pod quality/flavor preferences unknown
- Larger Bush Types with later maturity

Asian ‘Long Beans’

- Type of Cowpea with very long pods
- Also called ‘Asparagus bean’
- Hot weather crop like Blackeyes
- Plants are Climbers-need to be grown on trellises to keep pods straight and clean
- Considered one of the top-ten Asian vegetables
- One of the leading ‘Oriental’ vegetables in Europe
- Preferred to green beans in Asian ‘Stir-Fry’ dishes, etc.
- Available in most major Supermarkets



New Classes of ‘Blackeyes’ to Expand Markets



Dry-Green “Blackeyes” to Expand Markets

What are Dry-Green Blackeyes?

- Dry-green blackeyes are just like normal blackeyes except as the seed matures in the pod, the chlorophyll is conserved so that the dried seed is green.
- When soaked in water for several hours, the rehydrated dry-green blackeyes resemble ‘fresh-shelled’ blackeyes. After soaking, they can be frozen to create an attractive frozen-vegetable and can be used in blends.



Developing Markets

- Dry harvested frozen cowpeas are extremely profitable to processors — there is a strong incentive to use the product in blends with more expensive vegetables.



UCR Plant Breeder Dr. Jeff Ehlers and Technician Uriah Dixon

Advantages of California cowpea products

- High quality dry grain for high value frozen vegetable packs
- Blend Themes-Southern, Brazilian, Caribbean, Vegetarian, etc



Developing New Varieties for California

- Basic breeding strategy is to use backcrossing to recreate the main plant types, maturity and yield level of CB46, but with different grain types.
- New varieties in the pipeline



California Green Blackeye Present Status

- Initial Crosses made between southern green types and California blackeyes in 1995
- Breeding lines are now developed with 3 or 4 crosses back to California Blackeyes

All-White Cowpeas

- Rehydrated frozen or canned whole bean
- Flours/ batters-unique gelation, adhesive, and cohesive properties needed in value-added foods
- These properties are useful for some meat-based applications
- Products: Akara, bean chips, meat extenders and substitutes (soy allergies)

What are 'Bean Tots'

- Tasty, partially fried, then baked item
- Made from 99% Blackeye cowpeas, onions, bell peppers, spices
- Blackeye cowpeas (or 'blackeyes') are very similar in nutritional characteristics as beans — except less gas forming
- High in protein and fiber
- Modeled after 'Akara' an important fast-food product sold daily by street vendors to millions in Africa



Bean Tots 'Nutritional Facts' — Salability to School Lunch Programs

- Schools looking for nutritious alternatives to french fries and meat
- High in protein and fiber, lower in fat than 'fries' and many meats
- Flexible on the School Lunch Menu — would count as a meat or vegetable
- 'Grown in California' crop



Office of Research

Joyce Patrona

Assistant Licensing Officer
Office of Tech Commercialization
Email: joyce.patrona@ucr.edu
Ph: 951-827-2524

Craig Sheward

Assistant Vice Chancellor
Office of Tech Commercialization
Email: craig.sheward@ucr.edu
Ph: 951-827-5535