KEMENTERIAN KELAUTAN DAN PERIKANAN

EKONOMI BIRU UNTUK INDONESIA EMAS

# PROFIL PATIN PUSTINA

Balai Perikanan Budidaya Air Tawar Sungai Gelam
Direktorat Jenderal Perikanan Budi Daya

BerAKHLAK
Berorientasi Pelayanan Akuntabel Kompeten Harmonis Loyal Adaptif Kolaboratif
#banggamelayanibangsa
KKP 2025 0% POVERTY 8% GROWTH panganbiru

## KATA PENGANTAR

Alhamdulillah kami bersyukur atas dilaunchingnya PATIN PUSTINA oleh BPBAT Sungai Gelam - Jambi ini. Buku Profil ini memberi gambaran tentang beberapa kegiatan yang kami lakukan sejak tahun 2008 yaitu ketika BPBAT Sungai Gelam - Jambi dicanangkan menjadi PUSTINA (Patin Unggul Sakti Nusantara) dan koordinator jejaring pemuliaan ikan Patin. sampai tahun 2020. Akhirnya kami telah menyelesaikan rangkaian kegiatan seleksi individu galur pertumbuhan sampai generasi ketiga, sehingga didapatkan respon seleksi yang cukup signifikan jika dibandingkan dengan populasi dasar maupun ikan patin yang telah dirilis sebelumnya.

Ikan Patin PUSTINA terbukti memiliki keunggulan yang cukup signifikan dari segi karakteristik pertumbuhan, daya tahan terhadap penyakit dan lingkungan, efisiensi penggunaan pakan, dan kelangsungan hidup. Pembuktian dilakukan melalui uji multilokasi dan uji tantang dibandingkan dengan ikan patin yang telah dirilis sebelumnya

Buku Profil ini juga dapat menjadi sarana memperkenalkan PATIN PUSTINA bagi UPR, pembudidaya, Penyuluh, Akademisi, Peneliti, Perekayasa, Pengusaha, Produsen Pakan, Pegawai Pemerintah, serta seluruh *stakeholder* perikanan Indonesia yang ingin mengetahui tentang strain ikan ini.

Selanjutnya kami mengucapkan terima kasih kepada semua pihak yang telah bekerja keras dalam membantu kegiatan kami dalam bidang pemuliaan ikan Patin di BPBAT Sungai Gelam - Jambi sejak tahun 2008-2025. Kami juga terus melanjutkan kegiatan seleksi ini sejalan dengan kegiatan produksi untuk mendapatan induk patin yang lebih unggul lagi kedepan.

Plt. Kepala Balai,

Ridho Karya Dongoran, S.Pi.

# Daftar Isi

## 1. Latar Belakang Program Seleksi : Patin Komoditas Penting

**Ikan introduksi**

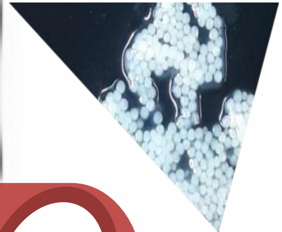
**Habitat asli sungai Mekong, masuk ke Indonesia tahun 1972 (Hardjamulia *et al*. 1981)**

**01**

**02**

**Hidup di kolam tadah hujan**

**Mampu mengambil oksigen dari udara (Lefevre at *al.* 2011; 2013) karena memiliki *swim bladder* (Browman and Kramer 1985)**



**Biaya produksi rendah**

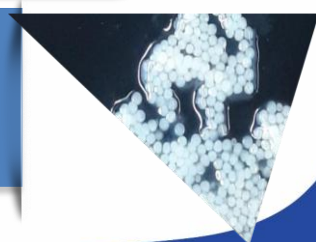
Pakan rendah protein sehingga biaya produksi rendah, ramah lingkungan, sumber protein yang murah (Nguyen 2013)

**03**

**04**

**Produksi $4^{th}$ terbesar (DJPB 2016 - 2020)**

Pasar sudah besar, konsumen sudah besar



# Milestones Program Seleksi Ikan Patin Siam di BPBAT Sungai Gelam

**01 — 2008**

**PUSTINA dibentuk**

BPBAT Sungai Gelam Jambi ditunjuk sebagai koordinator PUSTINA pada temu koordinasi di bogor 21-22 Mei 2008

**02 — 2009 - 2011**

**Pembentukan populasi *Founder***

BPBAT Sungai Gelam Jambi mengumpulkan benih patin siam dari berbagai daerah di Indonesia dan juga dari Kamboja serta Vietnam

**03 — 2011 - 2013**

**Pembentukan populasi Dasar**

Populasi Dasar dibentuk dengan memijahkan populasi founder dan menggabungkan benih populasi founder secara proporsional

**04 — 2013 - 2018**

**Program seleksi**

Diperoleh Generasi ke-3 (G3) Galur pertumbuhan

**05 — 2018 - 2020**

* Uji utu benih dan uji Mutilokasi Generasi ke-3 (G3) dengan nilai akumulasi respons seleksi sebesar 42,62%
* Diperoleh induk G4 Galur Pertumbuhan

**06 — 2020 - 2022**

Diperoleh galur pertumbuhan generasi ke lima (G5)

**07 — 2022 - 2024**

* Rilis hasil Pemuliaan dengan nama Patin PUSTINA (data G3)
* Uji mutu benih G5 dengan nilai akumulasi respons seleksi sebesar 91,6%

**08 — 2024 - 2026**

* Uji Mutu benih G6
* Produksi Calon Induk G7

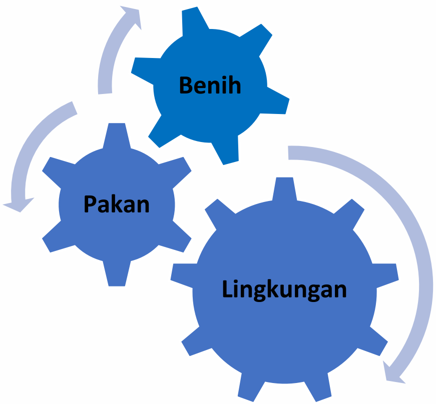
**09 — 2026 - 2045**

Program seleksi terus berlanjut sampai 2045 diperkirakan diperoleh generasi ke-17 Galur Pertumbuhan

# TIM PUSTINA TAHUN 2008 s.d. 2025

| Tim Ahli | Tim Pemuliaan | Tim Pendukung |
| --- | --- | --- |
| • Prof. Komar Sumantadinata<br>• Dr. Odang Carman<br>• Dr. Rudhy Gustiano<br>• Dr. Alimuddin<br>• Dr. Atmadja Hardjamulia<br>• Dr. Ratu Siti Aliah<br>• Prof. Kamiso<br>• DR. Asep Anang | • Ir. Mimid A. Hamid, M.Sc<br>• Boyun Handoyo S.Pi, M.Si<br>• Ir. Evi Rahayuni, MP<br>• Irwan, S.Pi, M.Si<br>• Solaiman, S.Pi<br>• Upmal Deswira, S.Pi<br>• Nofri Hendra, S.Pi<br>• Eva Rianti, S.St.Pi | • Dafzel Day, S.Pi, M.Si<br>• Lilik Masrifah<br>• Nefa Yulia<br>• Arief Rahmat Noviandi<br>• Messi Susanti |

# PATIN SEBAGAI KOMODITAS INDUSTRI




## Permasalahan

01
### Kuantitas
Tingkatkan kapasitas produksi

02
### Kontinuitas
Manajemen produksi

03
### Kualitas
Perbaikan mutu genetik

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Aquaculture

journal homepage: www.elsevier.com/locate/aquaculture

# Impact of selective breeding on European aquaculture

K. Janssen[a,*], H. Chavanne[b], P. Berentsen[c], H. Komen[a]

[a] Wageningen University, Animal Breeding and Genetics Group, Droevendaalsesteeg 1, 6708 PB Wageningen, The Netherlands
[b] Università degli Studi di Padova, Department of Comparative Biomedicine and Food Science, Viale dell'Università 16, Agripolis, 35020 Legnaro (PD), Italy
[c] Wageningen University, Business Economics Group, Hollandseweg 1, 6706 KN Wageningen, The Netherlands

A B S T R A C T

of breeding companies relative to the total egg or juvenile production in Europe for each species in 2012. Cumulative genetic gain was estimated from the number of selected generations in current breeding programs, combined with genetic trends, reported selection responses in literature, and phenotypic differences. The combined market share of breeding companies ranged from 43–56% for seabass to 100% for turbot. The total volume of fish production in Europe that originated from selective breeding was 1653–1706 thousand tonnes, corresponding to 80–83% of the total aquaculture production. Over species, there were 37 breeding programs of which the majority performed family selection. Growth performance was universally selected upon.

Cumulative genetic gain in growth performance varied from +65% for turbot to +900% for trout in terms of harvest weight, and from +25% for turbot to +200% for trout in terms of thermal growth coefficient. It is concluded that selective breeding has a major impact on European aquaculture and will contribute to future growth of the sector.

**80-83% produksi akuakultur di Eropa masih berasal dari program Selective Breeding**

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[c] Wageningen University, Business Economics Group, Hollandseweg 1, 6706 KN Wageningen, The Netherlands

**Table 7**
Number of breeding programs that reported to select on a given trait in the first survey (n = 28).

| Selected traits | Rainbow trout | Atlantic salmon | European seabass | Gilthead seabream | Turbot | Total |
|---|---|---|---|---|---|---|
| Growth performance | 9 | 7 | 4 | 5 | 2 | 27 |
| Morphology | 4 | 3 | 3 | 5 | 0 | 15 |
| Disease resistance | 4 | 6 | 2 | 2 | 1 | 15 |
| Product quality | 3 | 6 | 1 | 3 | 0 | 13 |
| Processing yield | 4 | 6 | 2 | 0 | 0 | 12 |
| Reproduction | 5 | 2 | 0 | 0 | 0 | 7 |
| Feed efficiency | 2 | 2 | 1 | 2 | 0 | 7 |

**Pertumbuhan merupakan karakter ekonomis penting**

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**Table 9**
Estimated cumulative genetic gain in harvest weight and TGC[a] by selective breedภe.

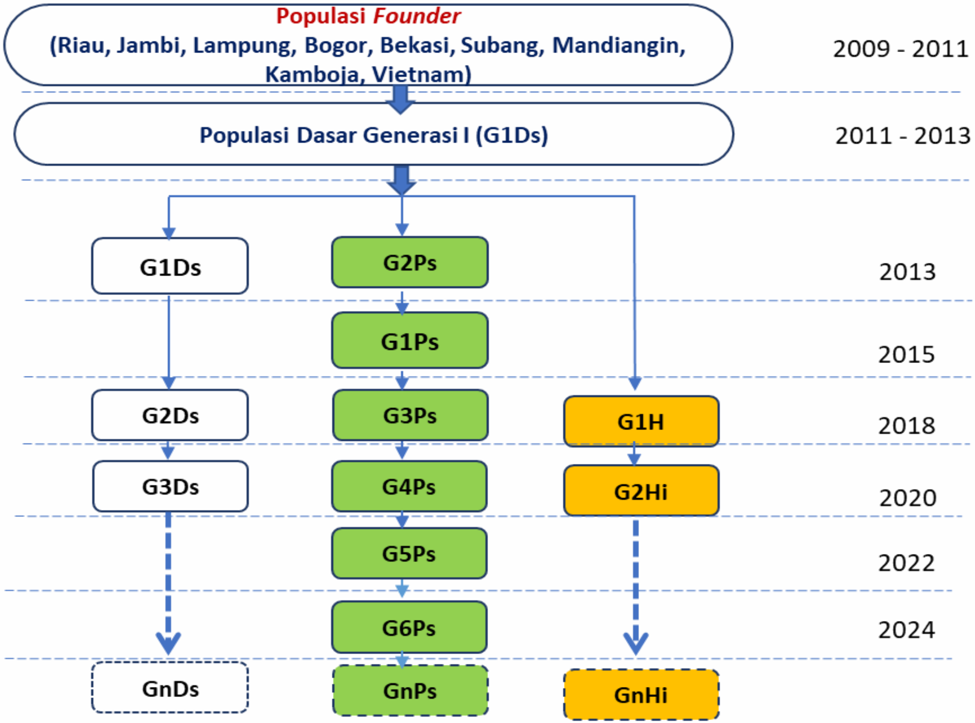
| | Rainbow trout | Atlantic salmon | European seabass[b] | Gilthead seabream | Turbot |
|---|---|---|---|---|---|
| Selected generations | 8–20 | ±10 | 2–8 | 1–5 | 3–5 |
| Selection response on harvest weight (%) | 7–13 | 12 | 20–25 | 10–15 | 10–15 |
| Selection response on TGC (%) | ? | 6 | 5–10 | 7 | 5 |
| Cumulative genetic gain in harvest weight (%) | +900 | +200 | +50–150 | <100 | +65 |
| Cumulative genetic gain in TGC (%) | +200 | +80 | +20–50 | <40 | +25 |

[a] Thermal growth coefficient.
[b] Only based on selection response in first generation and genetic parameters.

**Kemajuan seleksi komoditas penting di Eropa**

## 2. Program Seleksi Ikan Patin Siam di BPBAT Sungai Gelam

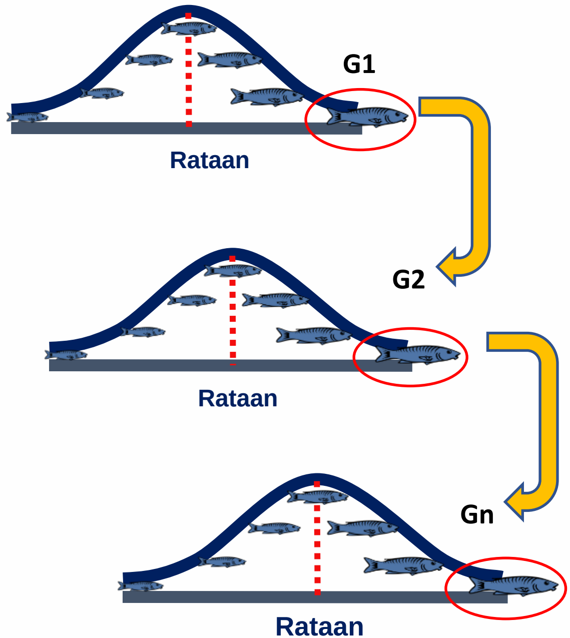
# Desain Pemuliaan Patin PUSTINA




G : Generasi , Ps : galur pertumbuhan, H: galur daya tahan, Ds : populasi dasar

## Program Seleksi "Galur Pertumbuhan" Patin PUSTINA

- Tujuan seleksi : menghasilkan galur yang memiliki pertumbuhan yang cepat sehingga disebut **Galur pertumbuhan**
- Metode yang digunakan : **Seleksi individu/massa**
- Karakter yang diseleksi **Bobot Tubuh**
- **Intensitas Seleksi 20%**



| Tahapan Seleksi | Durasi | Catatan |
|---|---|---|
| **Pematangan induk** | **90 hari** | **150 ekor betina dan 50 ekor jantan** |
| **Pemijahan** | **3 hari** | Minimal diperoleh **20 famili** |
| **Pemeliharaan larva** | **15 hari** | Setiap famili **dipelihara terpisah** |
| **Pendederan** | **30 hari** | Ambil secara **acak** dan dipelihara **terpisah** |
| **Pembesaran tahap I** | **320 hari**<br>**(umur 1 tahun)** | Ambil secara **acak** dan **proporsional** dari setiap famili kemudian dipelihara secara **komunal** |
| **Seleksi tahap I** | **3 hari** | ***Cut off* 50%, seleksi bobot tubuh** |
| **Pembesaran II** | **300 hari**<br>**(umur 21 bulan)** | Dipelihara secara normal |
| **Seleksi tahap II** | **3 hari** | ***Cut off* betina 20% , Jantan 10%; betina : 150 ekor, jantan 50 ekor** |
| | **2 tahun** | |

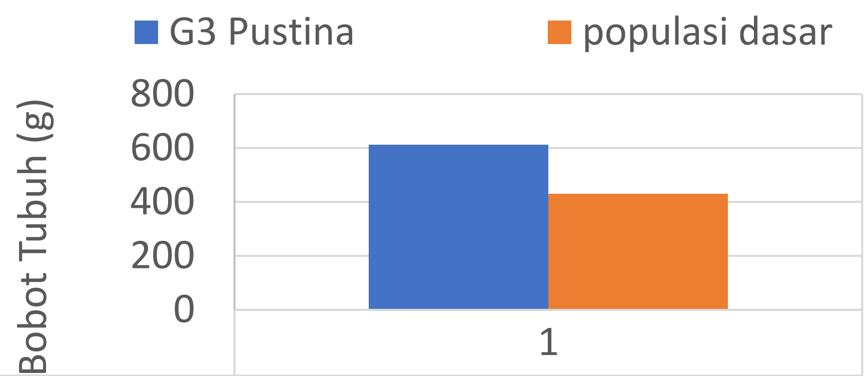
# 3. Performa G3 Patin PUSTINA

# Performa Benih G3 Patin PUSTINA

| Karakter | Kontrol | Pustina | Respons seleksi (%) |
|---|---|---|---|
| Bobot tubuh (g) | 0.93±0.23[a] | 1.23±0.30[b] | 32.25 |
| Panjang standar (mm) | 40.21±2.88[a] | 45.95±3.66[b] | 14.27 |
| Panjang total (mm) | 48.08±3.47[a] | 55.01±4.39[b] | 14.41 |
| Sintasan (%) | 83.85±21.66[a] | 85.99±20.09[a] | 2.55 |
| LC50 NH3 | 2.088±0.606[a] | 2.615±0.362[b] | 25.24 |

**Kontrol : populasi dasar generasi kedua (G2Ds). Angka dengan huruf *superscript* yang sama pada baris yang sama menunjukkan tidak berbeda secara signifikan (P > 0.05).**

# **Respons Seleksi** G3 Patin Pustina




| | 1 |
|---|---|
| G3 Pustina | 611,61 |
| populasi dasar | 428,84 |

- Akumulasi respons seleksi tiga generasi 42,62% (per- generasi sebesar **14.2%**)
- **Pembanding respons seleksi ikan lain:**
  - **Nila: 6.64-13.6% (Rezk *et al*. 2009; Thodesen *et al*. 2012; Bentsen *et al*. 2017; Hamzah *et al*. 2017)**
  - Respons seleksi rerata pada berbagai komoditas: **12.7%** (Gjedrem and Baranski 2009)

# 4. Uji Banding Performa Produksi

## G3 Patin Pustina vs Patin Perkasa

# Produk Rilis Patin Siam

| Nama rilis | : | Perkasa |
|---|---|---|
| Tahun rilis | : | 2018 |
| Pemulia | : | BRPI Sukamandi |
| Metode | : | Seleksi Famili |
| Generasi | : | G2 |
| Respons Seleksi Kumulatif | : | 38.86% |

**Genetic improvement of growth trait in Siamese catfish (*Pangasianodon hypophthalmus* (Sauvage, 1878)) through family selection**

Evi Tahapari, Jadmiko Darmawan, Suharyanto

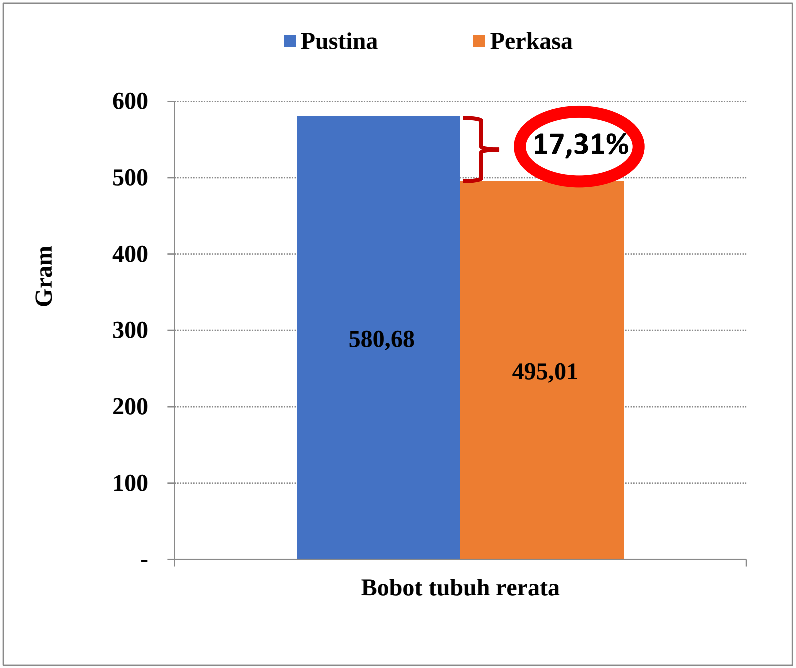
Research Institute for Fish Breeding, Sukamandi, West Java. Corresponding author: E. Tahapari, evitahapari@yahoo.co.id

**Abstract**. In the case of catfish culture in Indonesia, the availability of superior seeds with favorable rapid growth is still an obstacle in the community. Siamese catfish (*Pangasianodon hypophthalmus*) breeding activity by applying family selection program has been done at Research Institute for Fish Breeding (RIFB) Sukamandi, Indonesia. Selection is one of the efforts to produce superior broodstock in order to improve the productivity of catfish culture. The improved character is expected to be inherited in the next generation. This study aimed to evaluate the selection response, selection differential and heritability of second-generation Siamese catfish. The formation of second generation of Siamese catfish (G2) was done through family selection on growth character using the size parameter of body weight by half-sib method. Selection response test was conducted on selected fish from the first generation Siamese catfish breeder (G1) selected. The spawning resulted in 20 families and they were kept separately for eleven months in the 20 net cage of 3m x 5m x 1.5m, placed in an earthen pond. The results showed that response to selection, selection differential and real heritability in the second generation population were 18.54% (125.97 g), 29.95% (241.19 g) and 0.48, respectively. Siamese catfish second generation of the selection results are expected to play a role in increasing the productivity of national catfish culture fishery and can improve the welfare of the farmers community. The selection process still need to be continued to the next generation to obtain a superior generation.

**Key Words**: growth, selection, genetics, Siamese catfish, response to selection.

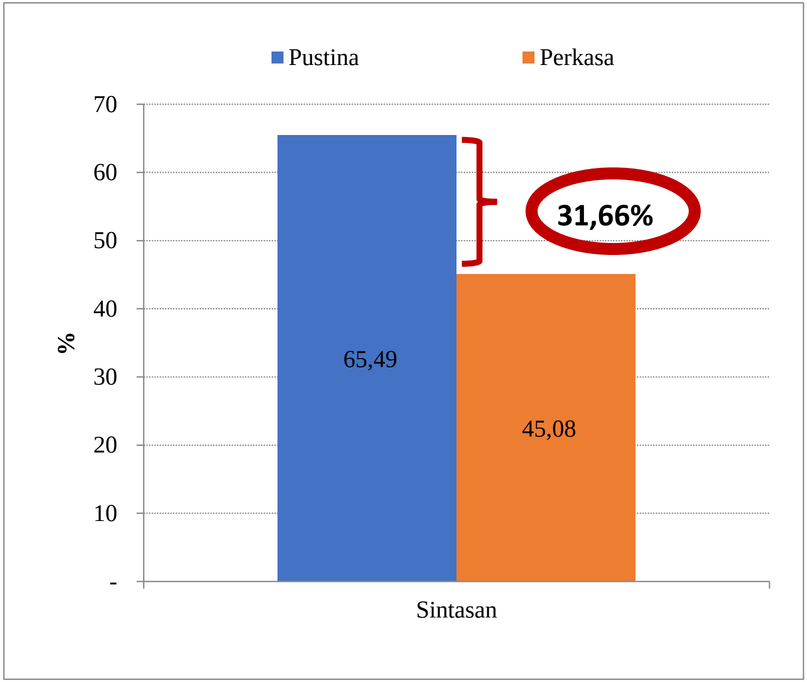
AACL Bioflux, 2018, Volume 11, Issue 5.
http://www.bioflux.com.ro/aacl

# Hasil Uji Banding G3 Patin PUSTINA dengan PERKASA
## (RERATA BOBOT TUBUH)




- Patin Pustina yang dibandingkan yaitu Generasi 3
- **Pustina Unggul 17,31% vs Perkasa (Rearata Bobot)**
- Uji banding tahap pembesaran dilakukan di BPBAT Sungai Gelam, kawasan kolam tadah hujan Kumpeh, karamba di Sungai Batanghari dan Bogor.

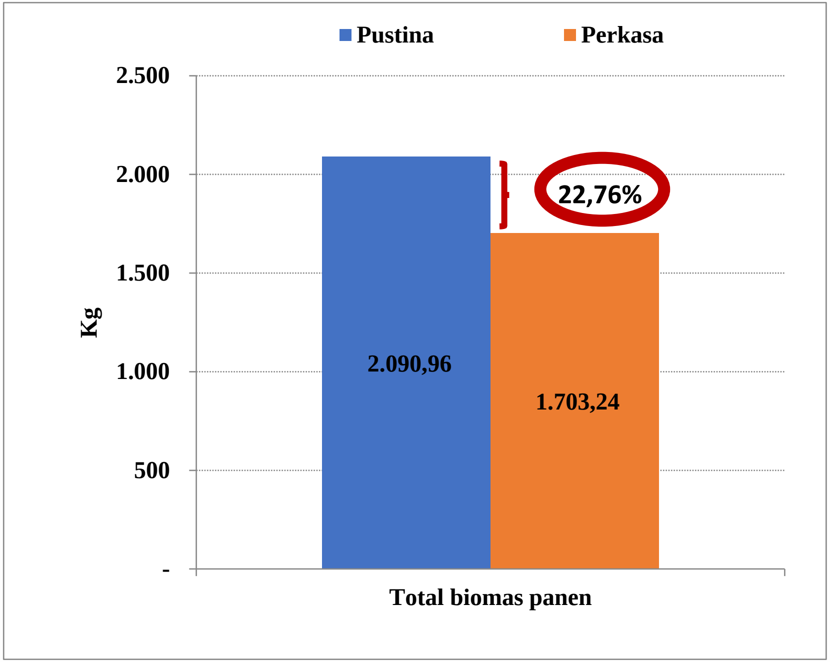
# Hasil Uji Banding G3 Patin PUSTINA vs PERKASA
## (Sintasan/SR)




PUSTINA lebih unggul **31,66 %** dibandingkan PERKASA.

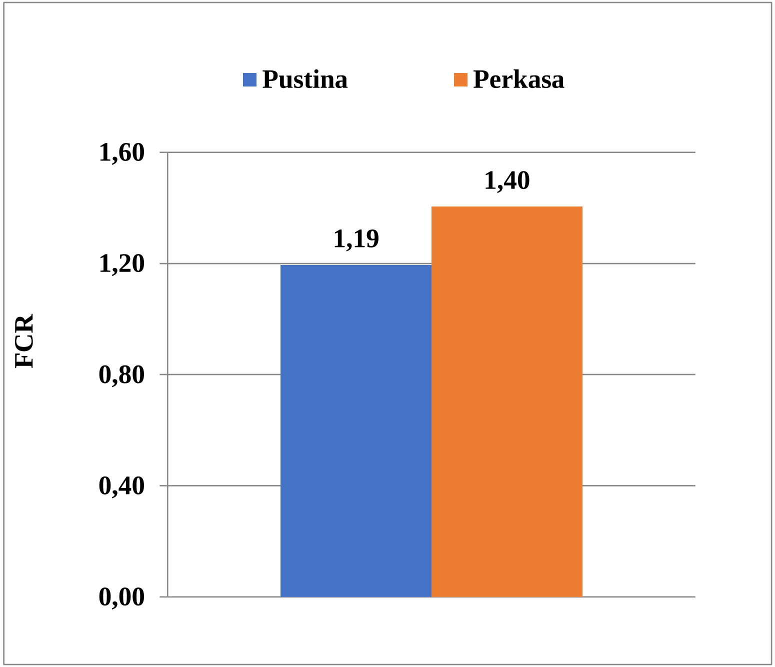
Uji banding tahap pembesaran dilakukan di BPBAT Sungai Gelam, kawasan kolam tadah hujan Kumpeh, karamba di Sungai Batanghari dan Bogor.

## Hasil Uji Banding G3 Patin PUSTINA vs PERKASA
## (Total Biomassa Panen)




- PUSTINA lebih unggul **22,76%** dibandingkan PERKASA
- Uji banding tahap pembesaran dilakukan di BPBAT Sungai Gelam, kawasan kolam tadah hujan Kumpeh, karamba di Sungai Batanghari dan Bogor

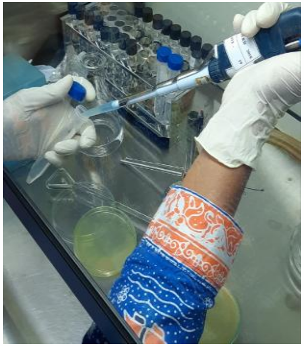
# Hasil Uji Banding G3 Patin PUSTINA vs PERKASA
## (FCR/Konversi Pakan)



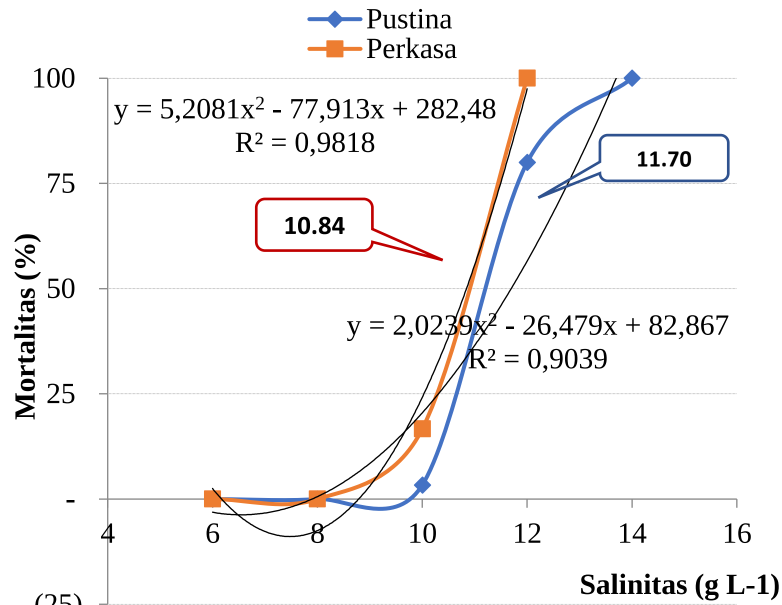

- PUSTINA lebih unggul 17,03% dibandingkan PERKASA
- Uji banding tahap pembesaran dilakukan di kawasan kolam tadah hujan Kumpeh, Kab. Muaro Jambi, Provinsi Jambi

# Uji Toleransi Lingkungan dan Daya Tahan Penyakit

## G3 Patin PUSTINA



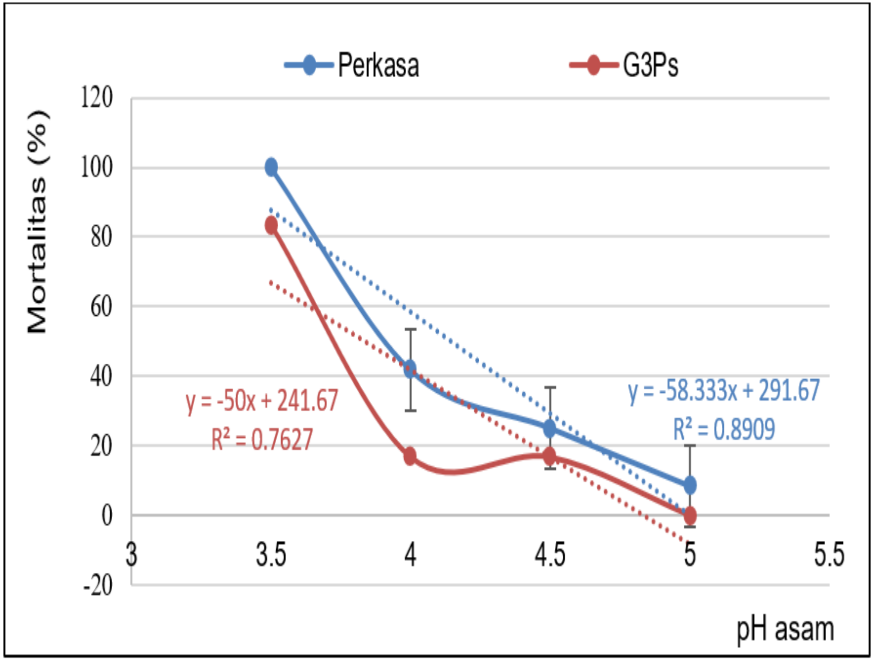
# Hasil Uji Toleransi Salinitas G3 Patin PUSTINA dan PERKASA




**Grafik uji toleransi salinitas patin Pustina dan Perkasa**

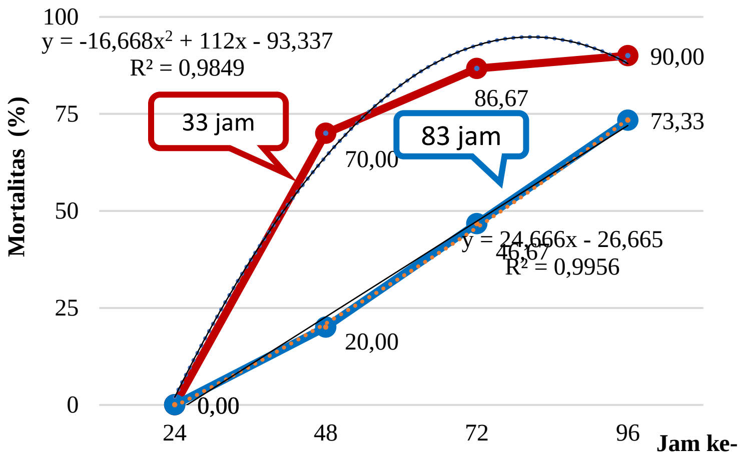
- Mortalitas 100% patin **PERKASA** pada **salinitas 12 ppt.**
- Mortalitas 100% patin **PUSTINA** pada **salinitas 14 ppt.**

# Hasil Uji Toleransi pH G3 Patin Pustina dan Perkasa




- Mortalitas 100% patin **PERKASA** pada **pH 3,5**
- Mortalitas 83,33% patin **PUSTINA** pada **pH 3,5**

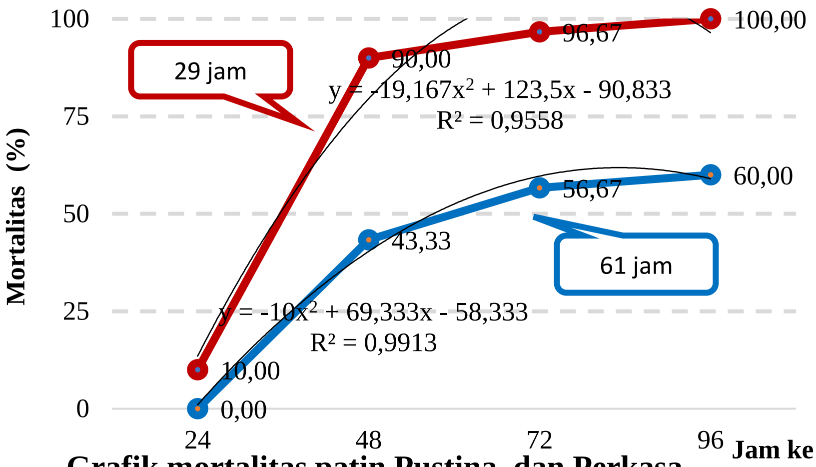
# Hasil Uji Tantang G3 Patin Pustina dan Perkasa terhadap Bakteri *Edwardsiella ictaluri*




**Grafik mortalitas patin Pustina dan Perkasa dalam uji tantang infeksi bakteri *Edwardsiella ictaluri* dengan dosis 0.1 x 105CFU/mL**

- Jam ke 96 mortalitas patin **PERKASA** sebesar **90%**
- Jam ke 96 mortalitas patin **PUSTINA** sebesar **73,33%**

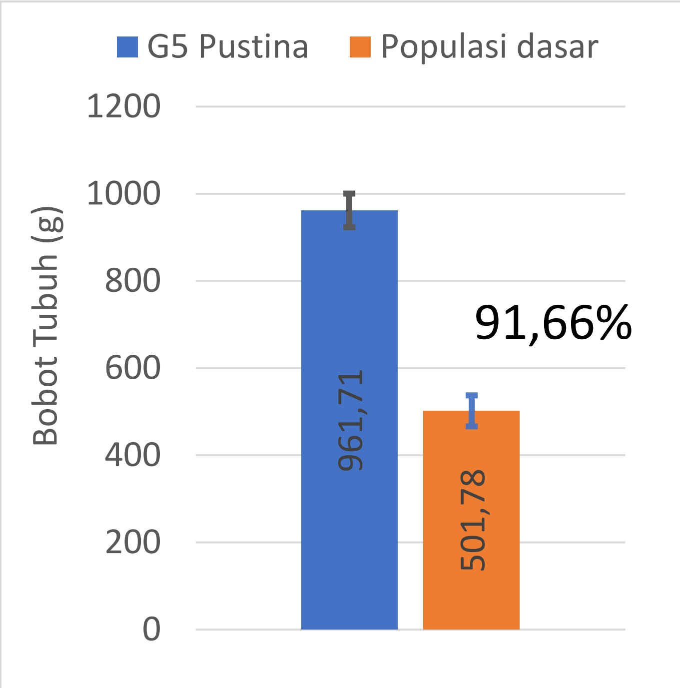
# Hasil Uji Tantang G3 Patin Pustina dan Perkasa terhadap Bakteri *Aeromonas hydrophila*

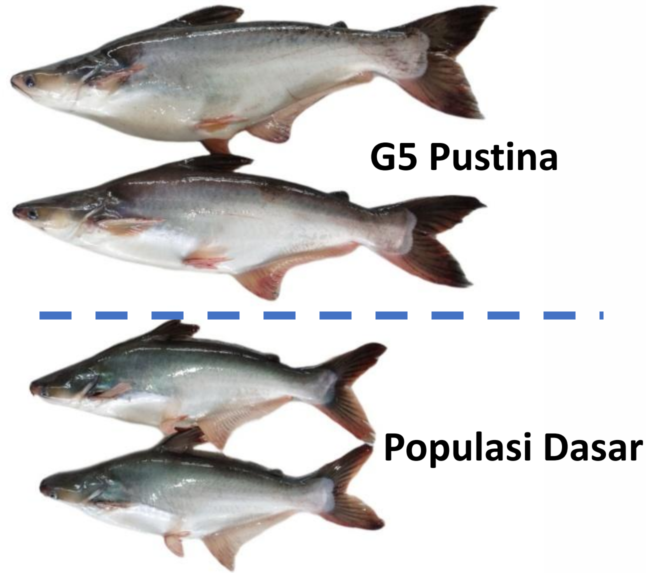



**Grafik mortalitas patin Pustina dan Perkasa dalam uji tantang infeksi bakteri *Aeromonas hydrophila* dengan dosis infeksi bakteri 0,1 x 105 CFU/mL**

- Jam ke 96 mortalitas patin **PERKASA** sebesar **100%**
- Jam ke 96 mortalitas patin **PUSTINA** sebesar **60%**

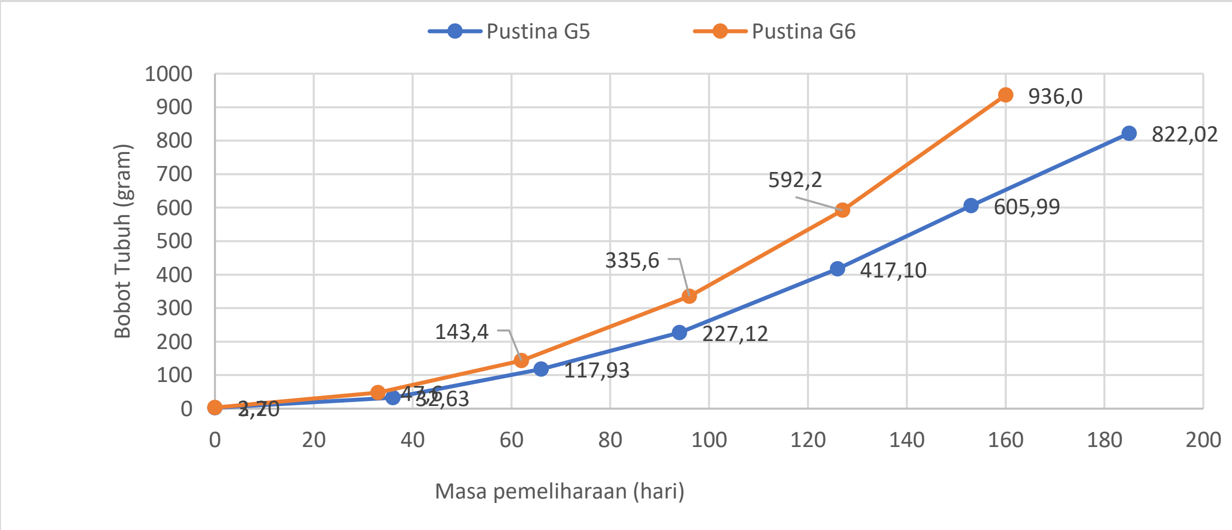
# Performa G5 Patin Pustina



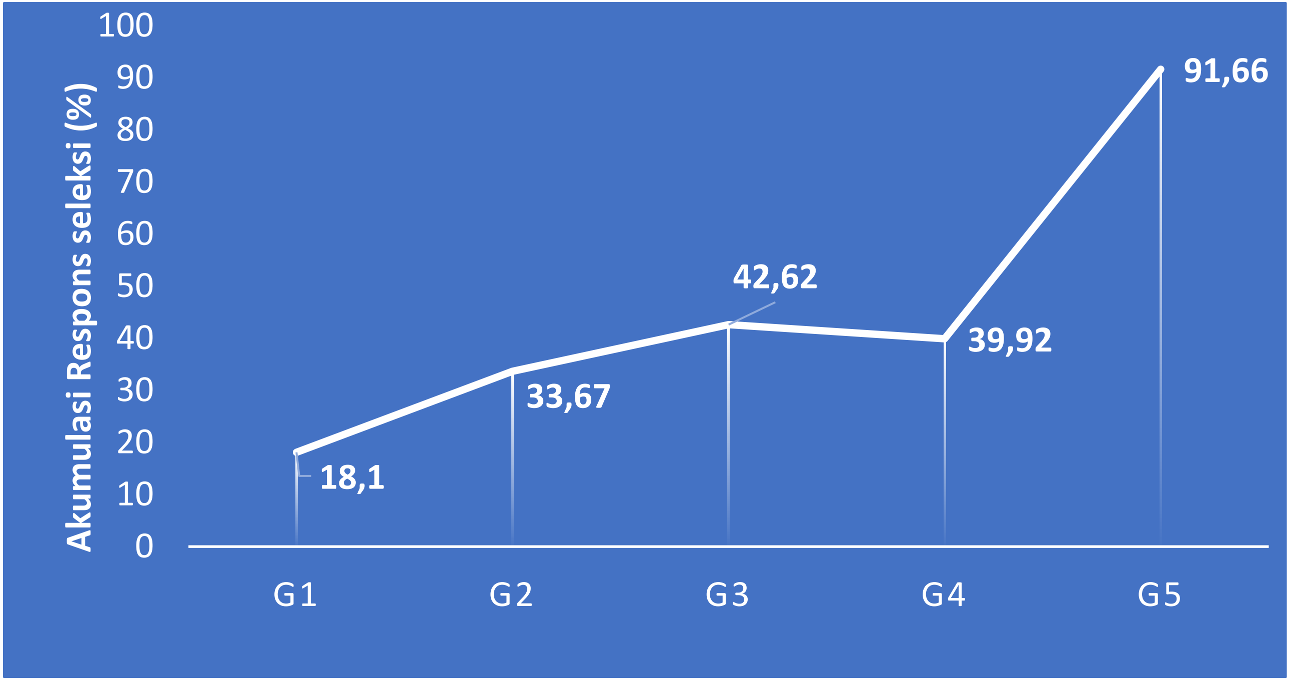

**Lama pemeliharaan 180 hari (6 bulan)**

# Performa G6 Patin PUSTINA




- Tahun 2024 diperoleh induk PUSTINA generasi ke 6
- Bobot tubuh anakan (F1) dari G6 dapat mencapai 936 g pada masa pemeliharaan 160 hari ( 5 bulan 10 hari)
- Bobot tubuh anakan (F1) dari G5 dapat mencapai 822 g pada masa pemeliharaan 180 hari ( 6 bulan)

## Akumulasi respons seleksi Patin Pustina 5 Generasi



# Program Seleksi Patin Siam di Vietnam

- Program seleksi di Vietnam **dimulai sejak tahun 2001**
- Pada tahun 2016 diperoleh G4, diprediksi **tahun 2020 sudah 6 generasi**
- Respons seleksi **9.3%** per generasi
- **G4 13.4% lebih baik dibandingkan populasi alam**

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## Genetic evaluation of a 15-year selection program for high growth in striped catfish *Pangasianodon hypophthalmus*

Nguyen Thanh Vu[a,b,*], Nguyen Van Sang[a], Tran Huu Phuc[a], Nguyen The Vuong[a], Nguyen Hong Nguyen[b,*]

[a] Research Institute for Aquaculture, No.2, 116 Nguyen Dinh Chieu Street, District 1, Ho Chi Minh City, Viet Nam
[b] GeneCology Research Center, School of Science and Engineering, University of the Sunshine Coast, Maroochydore, QLD 4558, Australia

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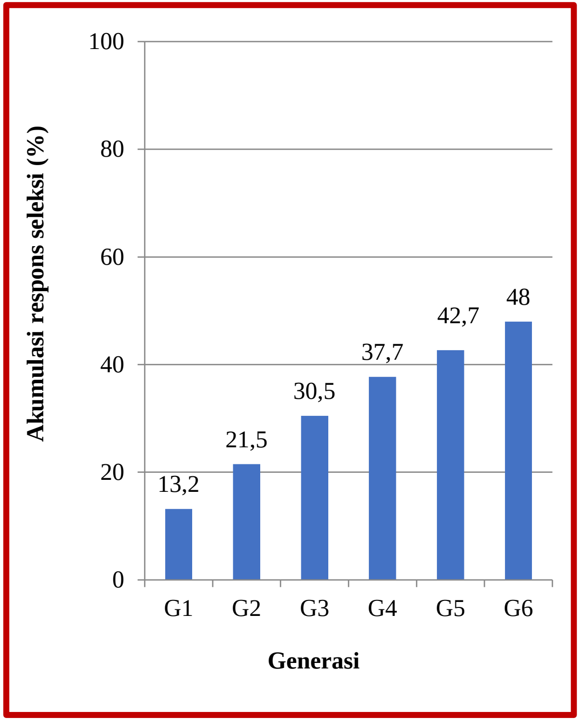
ABSTRACT

This study attempted to make a comprehensive genetic evaluation of a selective breeding program for striped catfish *Pangasianodon hypophthalmus* selected for high growth over 15 years from 2001 to 2015. Statistical analyses were carried out on 54,259 individual fish that were offspring of 554 sires and 926 dams (955 families in total). Both univariate and bivariate linear animal mixed models were used to estimate variance and covariance components for four groups of traits studied: (i) body traits (harvest body weight and standard length), (ii) carcass traits (fillet weight and fillet yield), (iii) fish body condition (condition index) and (iv) growth survival of each individual during grow-out phase. Medium to high heritability (0.31–0.54) were estimated for body traits, while carcass and condition index had medium heritability (0.17 to 0.20). Phenotypic and genetic correlations among body traits (weight and length) were high and close to one. The growth-related traits showed moderate and positive (i.e., favourable) genetic correlations with fillet yield (0.67–0.92) and condition index (0.28–0.49). Direct response to selection for high growth was 9.3% per generation. The selection program increased fillet weight and growth survival by 8.5% and 7.4%, respectively. However, there was insignificant correlated change in fillet yield (only 1.6%). Collectively, our results showed that there are substantial genetic variations in all traits studied and selection for high growth resulted in beneficial changes in fillet weight, fish body condition and survival during grow-out phase. The improved strain of striped catfish had 13.4% greater growth performance than their wild counterparts of the latest generation, suggesting that culture of the improved striped fish line may enhance productivity and economic return for small householder farmers and commercial producers.

**Nguyen *et al*. 2019**

# **Akumulasi Respons Seleksi Program Seleksi Nila di China**





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Genetic improvement of tilapias in China: Genetic parameters and selection responses in growth of Nile tilapia (*Oreochromis niloticus*) after six generations of multi-trait selection for growth and fillet yield


Jørn Thodesen (Da-Yong Ma) [a,*], Morten Rye [a], Yu-Xiang Wang [b], Kong-Song Yang [b], Hans B. Bentsen [c], Trygve Gjedrem [a,c]

[a] Akvaforsk Genetics Center (AFGC), N-6600 Sunndalsøra, Norway
[b] Hainan Progift Aqua-Tech Co. Ltd, Dingan, Hainan Province, China
[c] Nofima Marin, P.O. Box 5010, N-1432 Ås, Norway



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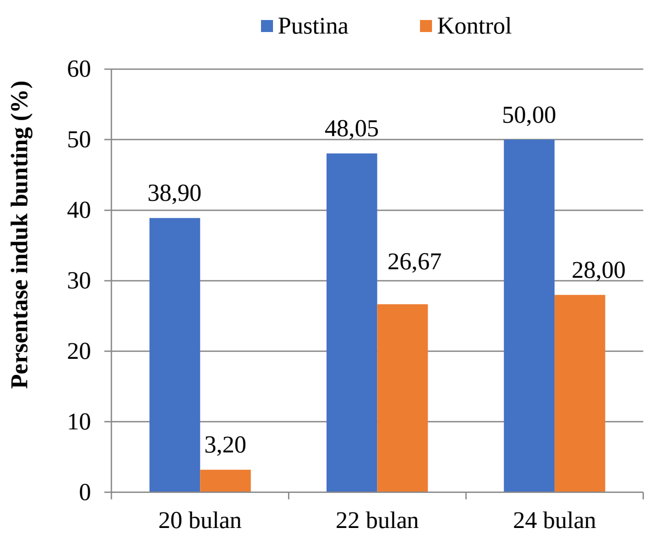
ABSTRACT

Genetic parameters and selection responses were obtained for growth of Progift Nile tilapia (*Oreochromis niloticus*) in China after six generations of multi-trait selection. About 64,000 tagged fingerlings representing 787 full-sib families in seven generations of Nile tilapia originating from the GIFT breed were tested in freshwater earthen ponds, floating cages in reservoirs and a brackish water earthen pond in Guangdong and Hainan Provinces of China. Individual body weight was recorded on 25,000 of these at the expected time of sexual maturation and 50,000 at harvest to estimate genetic parameters for growth rate. Heritability ($h^2$) estimates for body weight showed large variation in magnitude (0.00–0.52) when analyzing data from each test environment and generation separately. Estimates obtained in floating cages and a brackish water pond was comparable or lower in magnitude than those obtained in freshwater earthen ponds. The $h^2$ estimates for body weight at harvest became more stable (range 0.13–0.20) when data from previous generations were included in the analysis. Including all data, the effect common to full-sibs ($c^2$) accounted for 10% of the total phenotypic variance for body weight at harvest. Genetic correlation between growth recorded at expected time of sexual maturation and at harvest was 0.8, but seemed to decrease in later generations. The genetic correlations between growth in freshwater earthen ponds and other test environments were of similar magnitude. Breeding candidates in the base population ($G_0$) were ranked according to their individual breeding values for growth (recorded as body weight at harvest), while those in later generations ($G_1$–$G_5$) were ranked according to a selection index including individual breeding values for growth and family breeding values for fillet yield. The selection response for growth was, on average, 11.4% per generation of selection (range 7.4–18.7%) when estimated based on control groups representing the parental generations. A genetic trend analysis based on all data ($h^2=0.20$, $c^2=0.10$) predicted an accumulated selection response of more than 200 g and an average selection response of 8.0% per generation of selection when using the LS mean of the $G_0$ as a base line for the comparison. The average inbreeding coefficient (F) was estimated to be 5.0% after six generations of selection. The results are discussed in a practical context of developing selective breeding programs for tilapias and it is concluded that the ongoing selective breeding of Nile tilapia in China has resulted in considerable genetic improvement of growth (60–90% larger body weight at harvest) after six generations of multi-trait selection.


**(Thodesen *et al*, 2011)**

# Galur Pertumbuhan Hasil Seleksi  Lebih Cepat Matang Gonad



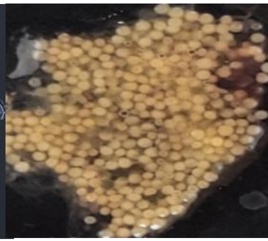

**Grafik proporsi induk matang gonad Pustina dan Kontrol**

# 5. Produksi dan Distribusi Induk Hasil Seleksi

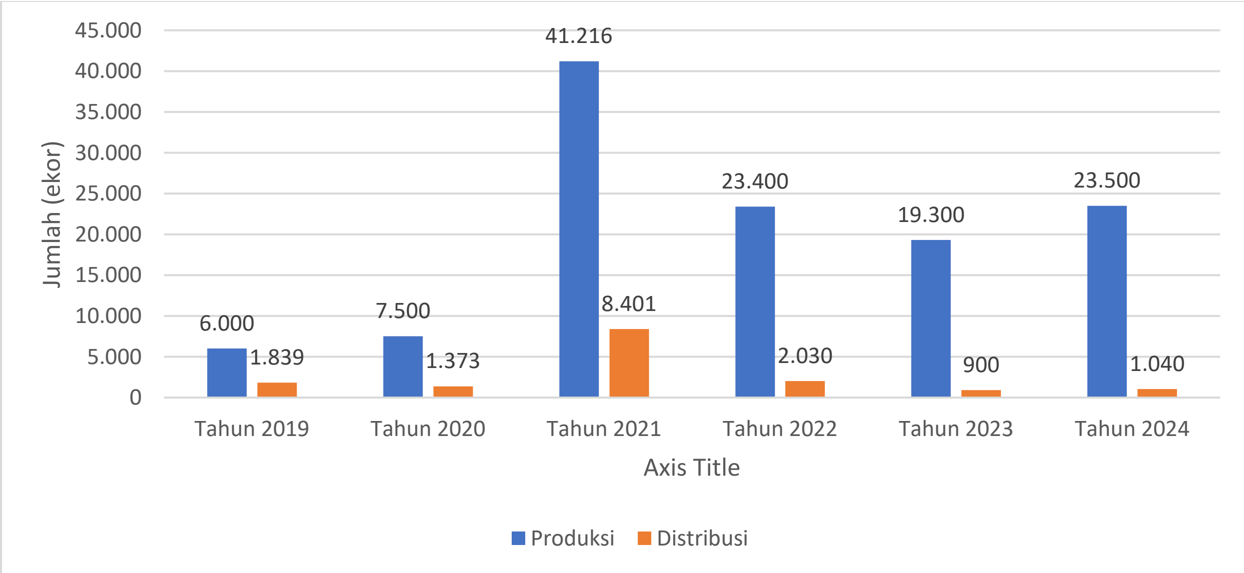




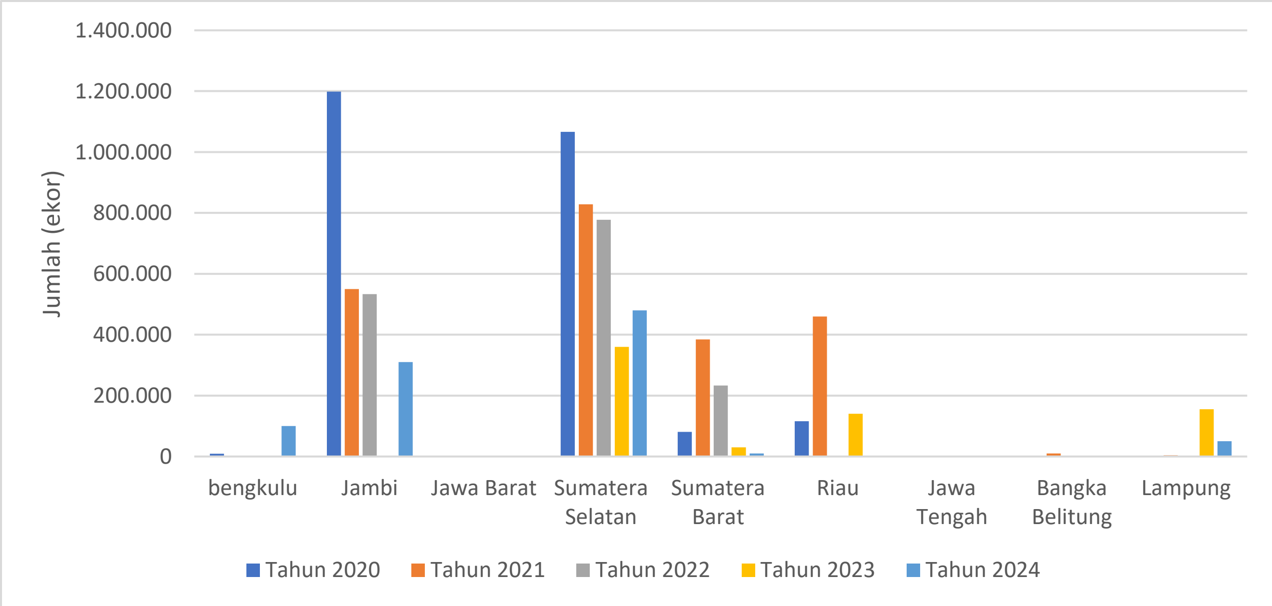




# Produksi dan Distribusi Calon Induk Ikan Patin PUSTINA



# Daerah Distribusi Benih Ikan Patin



# Distribusi Benih Calon Induk Patin PUSTINA ke Pulau Jawa

| Penerima | Volume (ekor) | Ukuran | Lokasi | Tahun Distribusi |
|---|---|---|---|---|
| BBPBAT Sukabumi | 600.000 | Larva | Sukabumi | 2020 |
| UPR Sahban Empang | 2.000 | 2,5 - 3 Inci | Parung Bogor | 2020 |
| BLUPPB Karawang | 15.000 | 1,5 - 2 Inci | Karawang | 2021 |
| BPBAT Mandiangin | 10.000 | 6-8 cm | Mandiangin Kalsel | 2022 |
| BPBAT Mandiangin | 10.000 | 6-8 cm | Mandiangin Kalsel | 2023 |
| BPBAT Sukabumi | 10.000 | 6-8 cm | Sukabumi | 2024 |

# 6. Penutup

- Hasil Program Seleksi Ikan Patin di BPBAT Sungai Gelam telah di rilis pada tahun 2023 (KEPMEN KP NO. 180 Tahun 2023 Tentang Pelepasan Ikan Patin Pustina) dengan nama Patin PUSTINA
- Patin PUSTINA pada tahun 2024 telah sampai pada G5 (Generasi ke-5) dengan respons seleksi sebesar 91,66%
- Patin PUSTINA Generasi ke-3 telah uji banding dengan Patin PERKASA dengan hasil untuk karakter **bobot tubuh rerata 17,31%**, **Total biomas panen 22,76%, Kelangsungan Hidup 31,66%** dan **FCR 17,03%**
- Patin PUSTINA G3 lebih toleran terhadap salinitas dan penyakit dibandingkan dengan patin PERKASA
- Calon/Induk patin siam PUSTINA tersedia **di BPBAT Sungai Gelam**
- Program seleksi patin PUSTINA terus berlanjut dan setiap 2 tahun naik 1 generasi, yang setiap naik 1 generasi akan meningkat nilai respons seleksi 10-15%.

KEMENTERIAN KELAUTAN DAN PERIKANAN

## Balai Perikanan Budidaya Air Tawar Sungai Gelam
## Direktorat Jenderal Perikanan Budi Daya

+62 821-8222-9696 @bpbatsungaigelam BoTiA TV Bpbat Sungai Gelam @DJPB_SEIGELAM +62 813-5354-5542