



## **Irsiyat qonunlari va gen haqida tushincha**

**AJINYOZ NOMIDAGI NDPI TARIX FAKULTETI “MILLIY  
G`OYA MA`NAVIYAT ASOSLARI VA HUQUQ  
TALIMI” BAKALOVRI 3\_B KURS TALABASI  
HIKMOTULLOEV BAHROMNING XOZIRGI ZAMON TABIIY  
FANLAR KONSEPSIYASI FANIDAN MUSTAQIL ISHI**



Mavzu: Irsiyat qonunlari va gen haqida tushincha





# REJA

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1. Mindilev qonuni haqida

2. Genitika fani haqida tushuncha

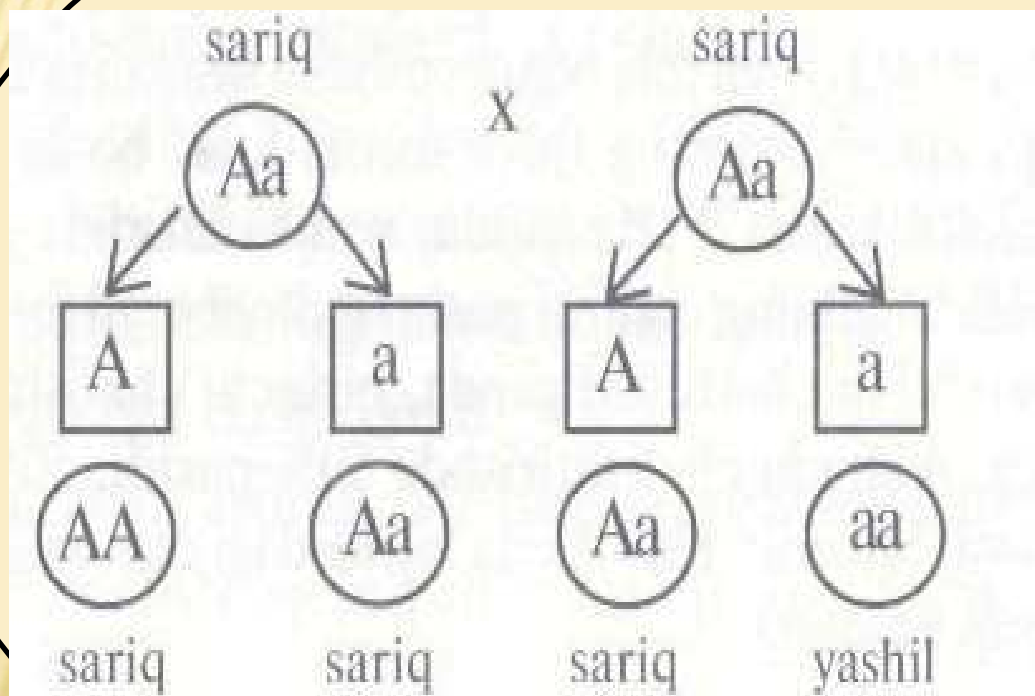
3. Irsiyat qonunlari

# Mindilev qonuni haqida malumot

Irsiyat qonunlarini tahlil qilishni Mendel chatishtirishdan-irsiy jihatdan bir juft belgisi bilan farq qiladigan ota-ona organizmlarni chatishtirishdan boshladi.

Doni sariq va yashil no'xat o'simliklari chatishtirilsa, shu chatishtirish natijasida olinadigan birinchi avlod duragaylarning hammasida donni sariq boladi.

# Keyingi ovlod belgilari



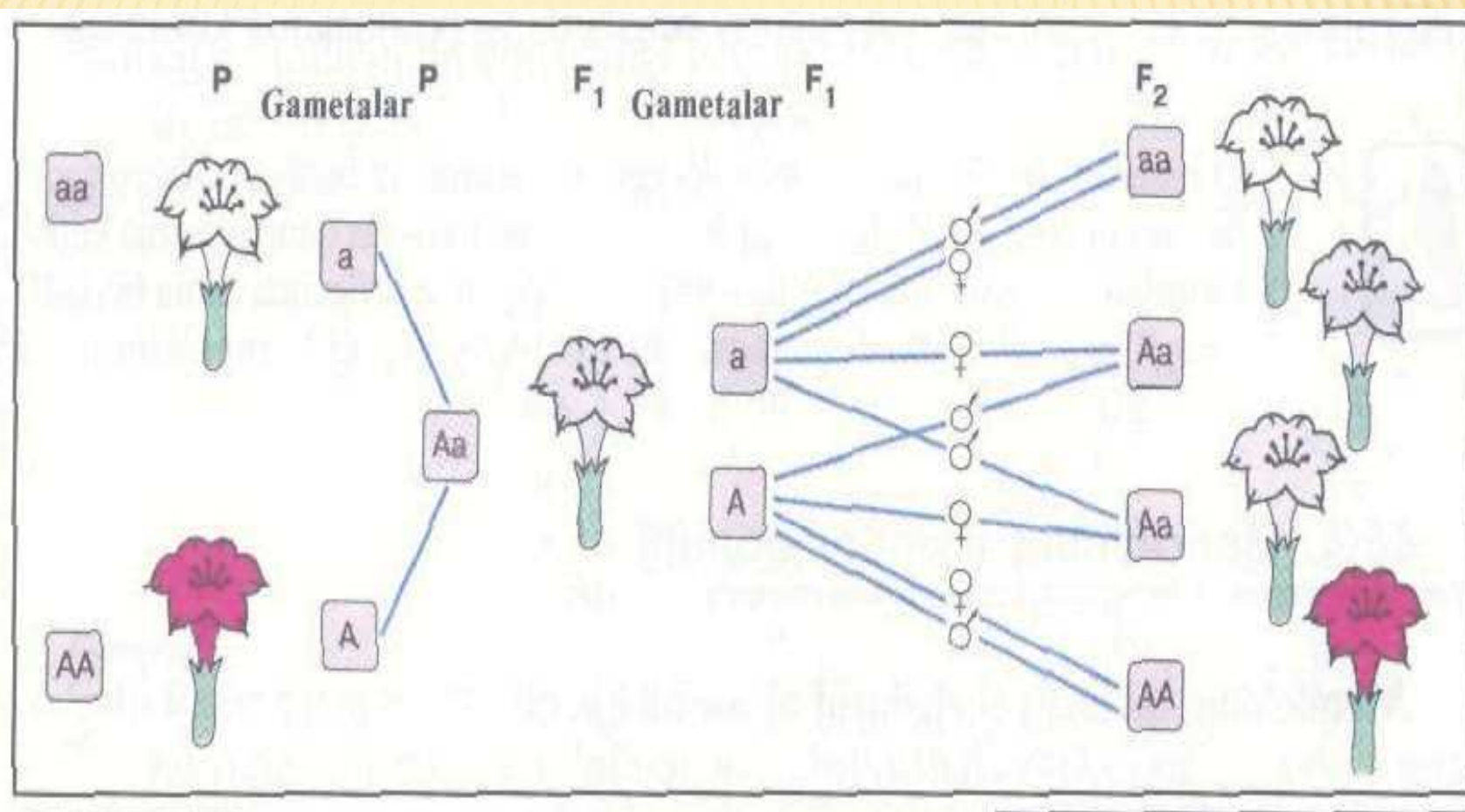
Dominantlik qonuni yoki birinchi bo'g'nda bir xillik qonuni deb ataladi.

Mindelevning birinchi qonuni

Ko'zdan kechiriladigan misollarda donning sariq formalari, gulining qizil rangi, donning yashil, burishgan , gulning oq rangi ustidan dominantlik qiladi



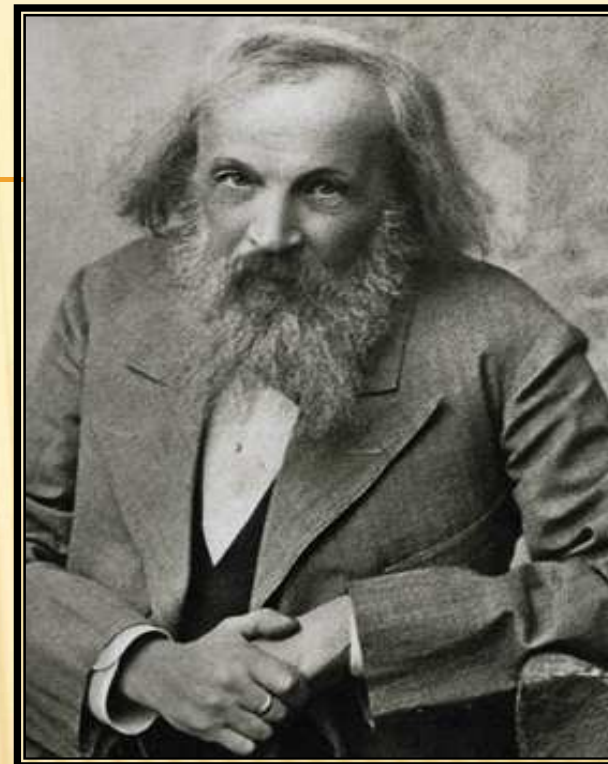
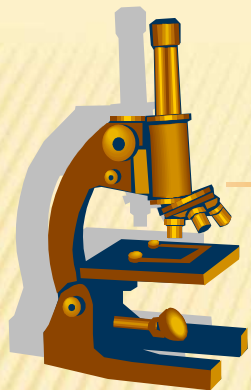
# Nomozshomgulda oraliq irsiylanish



58-rasm.

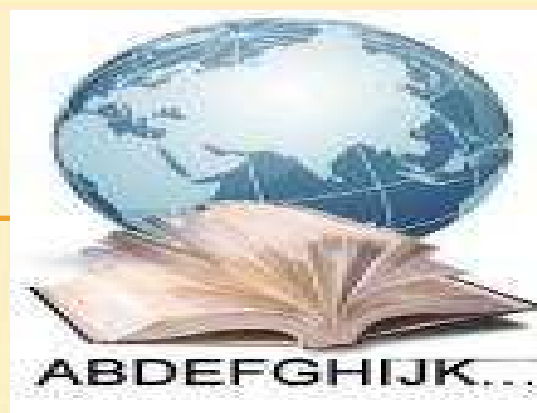
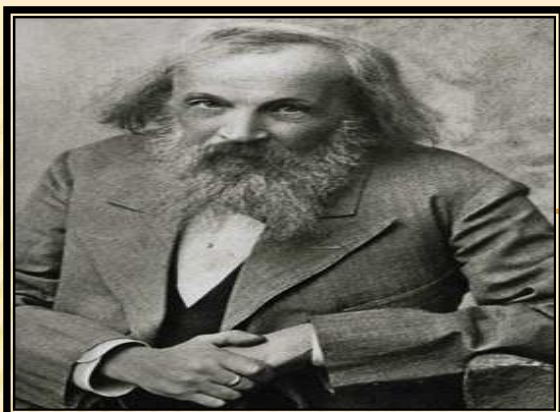
Nomozshomgulda oraliq irsiylanish:

AA • qizil;  
Aa • pushti;  
aa • oq.



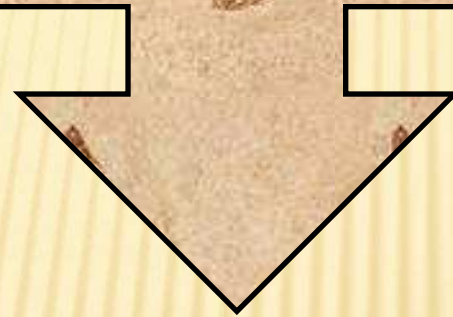
Agar bir juft belgisi bilan farq qiladigan gomozigota organizmlar o'zaro chatishtirilsa, F1 duragaylar ota-onalar organizmlar bitta belgisiga ega bo'lib, barchasi fenotip va genotip jihatdan bir xil bo'ladi.

Mendelning birinchi qonunini quyidagicha izohlash mumkin:



| PERIODIC SYSTEM OF ELEMENTS |    |    |    |      |     |    |    |    |    |    |    |     |     |    |    | VII            |    | VIII |      |  |   |    |    |    |    |      |     |    |    |    |    |      |
|-----------------------------|----|----|----|------|-----|----|----|----|----|----|----|-----|-----|----|----|----------------|----|------|------|-------------------------------------------------------------------------------------|---|----|----|----|----|------|-----|----|----|----|----|------|
|                             |    |    |    |      |     |    |    |    |    |    |    |     |     |    |    | III            |    | II   |      |                                                                                     |   |    |    |    |    |      |     |    |    |    |    |      |
| 1                           | H  |    |    |      |     |    |    |    |    |    |    |     |     |    |    | Li             | Be | B    | C    | N                                                                                   | O | F  | Ne |    |    |      |     |    |    |    |    |      |
| 2                           | Li | Be | B  | C    | N   | O  | F  | Ne |    |    |    |     |     |    |    |                | Na | Mg   | Al   | Si                                                                                  | P | S  | Cl | Ar |    |      |     |    |    |    |    |      |
| 3                           | Na | Mg | Al | Si   | P   | S  | Cl | Ar |    |    |    |     |     |    |    |                | K  | Ca   | Sc   | Ti                                                                                  | V | Cr | Mn | Fe | Co | Ni   |     |    |    |    |    |      |
| 4                           | K  | Ca | Sc | Ti   | V   | Cr | Mn | Fe | Co | Ni | Cu | Zn  | Ga  | Ge | As | Se             | Br | Kr   |      |                                                                                     |   |    | Rb | Sr | Y  | Zr   | Nb  | Mo | Tc | Ru | Rh | Pd   |
| 5                           | Rb | Sr | Y  | Zr   | Nb  | Mo | Tc | Ru | Rh | Pd | Ag | Cd  | In  | Sn | Sb | Te             | I  | Xe   |      |                                                                                     |   |    | Cs | Ba | La | Hf   | Ta  | W  | Re | Os | Ir | Pt   |
| 6                           | Cs | Ba | La | Hf   | Ta  | W  | Re | Os | Ir | Pt | Au | Hg  | Tl  | Pb | Bi | Po             | At | Rn   |      |                                                                                     |   |    | Fr | Ra | Ac | [K]† | [N] |    |    |    |    | [Am] |
| 7                           | Fr | Ra | Ac | [K]† | [N] |    |    |    |    |    |    |     |     |    |    |                |    |      | [Am] |                                                                                     |   |    |    |    |    |      |     |    |    |    |    |      |
|                             |    |    |    |      |     |    |    |    |    |    |    |     |     |    |    | † Protactinium |    |      |      |                                                                                     |   |    |    |    |    |      |     |    |    |    |    |      |
|                             |    |    |    |      |     |    |    |    |    |    |    |     |     |    |    | † Actinium     |    |      |      |                                                                                     |   |    |    |    |    |      |     |    |    |    |    |      |
| Ce                          | Pr | Nd | Pm | Sm   | Eu  | Gd | Tb | Dy | Ho | Er | Tm | Yb  | Lu  |    |    |                |    |      |      |                                                                                     |   |    |    |    |    |      |     |    |    |    |    |      |
|                             |    |    |    |      |     |    |    |    |    |    |    |     |     |    |    | † Actinium     |    |      |      |                                                                                     |   |    |    |    |    |      |     |    |    |    |    |      |
| Th                          | Pa | U  | Np | Pu   | Am  | Cm | Bk | Cf | Es | Fm | Md | [N] | [L] |    |    |                |    |      |      |                                                                                     |   |    |    |    |    |      |     |    |    |    |    |      |

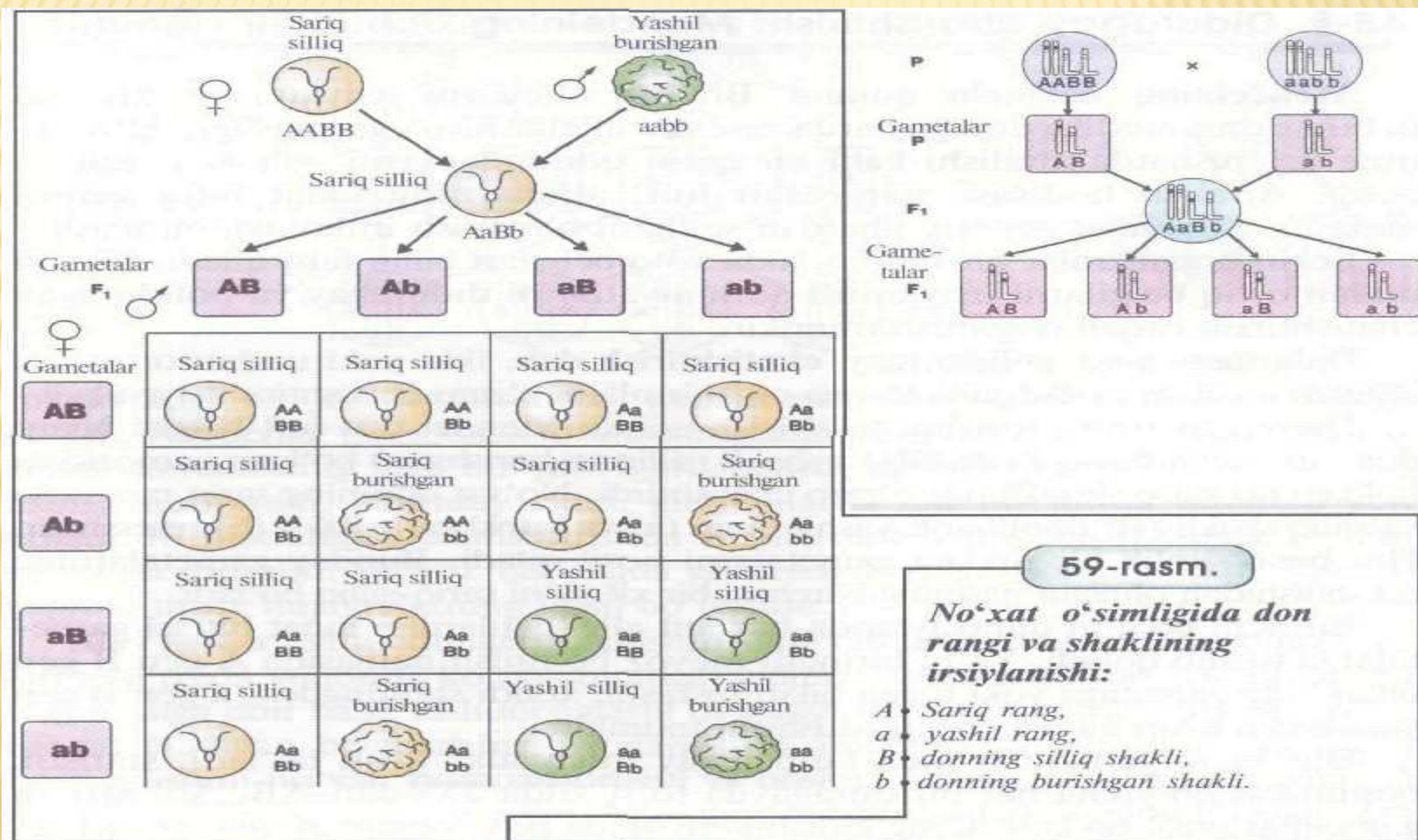
Birinchi avlod du'ragaylari bir hil bo'ladigan yuqorida ko'rip chiqilgan misollarda shu ifoda lanadiki, Duragaylarning hammasi sirttan ona yoki otaga oshadi. Bu hamisha ham kuzatila bermaydi. Geterozigota formalarda belgilar ko'pincha oraliq harakatga ega bo'ladi, ya'ni dominantiklik chala bo'lishi mumkin.



Chala  
dominantlik

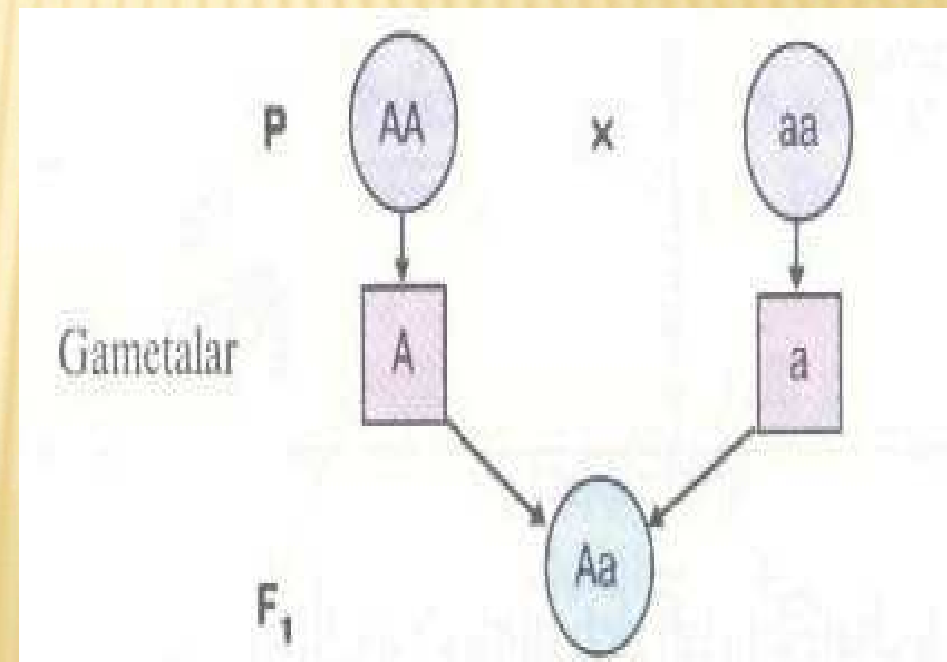
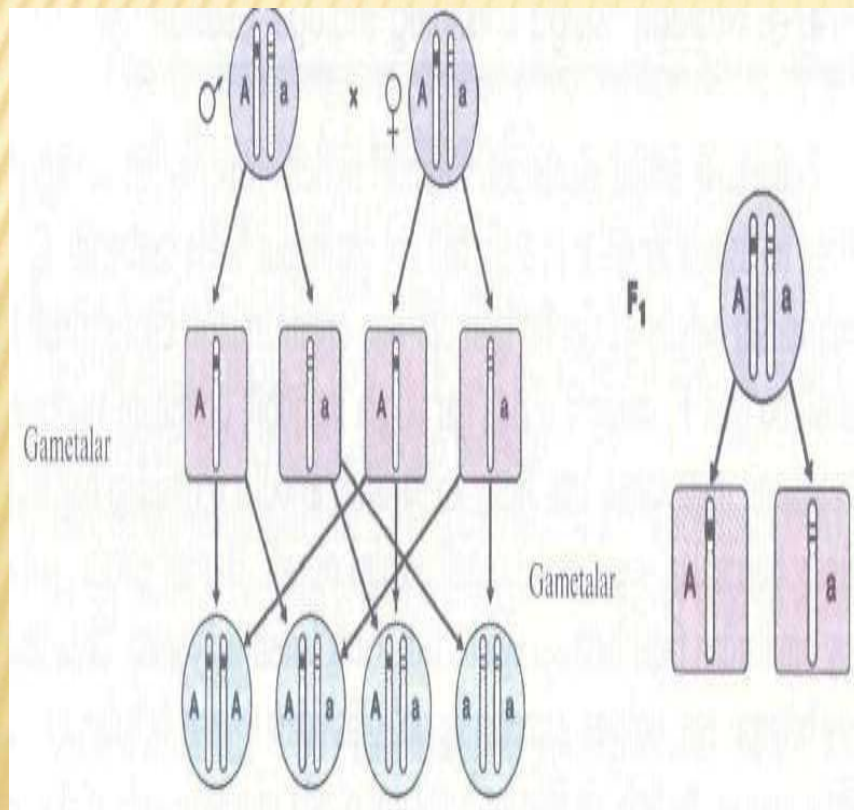


# No`xat o`simligida don rangi va shakilining irsiylanishi



Chala dominantlik  
keng tarqalgan  
hodisadir.

Chala dominantlik, ya'ni orliq irsiylanish qulibnay mevasining rangi, qushlar patining tuzilishi, andaluz tovuqning patining rangi, odamdagi biokimyoviy belgilarda va bosgqalarda kuzatiladi.





## Genitika fani

Organizmda, ularning belgi va xususiyatlarining nasildan nasilga berilishini takrorlovchi “Gen” deb ataluvchi irsiy birlik mavjudligini isbot etdi. Har qaysi organizmdagi barcha genlarning yig’indisi uning Genotipini tashkil etadi. Organizmning rivajlanishida hasil bo’lgan belgi va xususiyatlarning yig’indisi uning fenotipi deb ataladi.

Virus boshchalar va dumli speralga ega bo'ladi. Spiral purjina va igna kabi xujayra ichiga kirib boradi. Keyin esa turibka orqali DNK chiqarib tashlanadi va ko'pincha bir necha minutdan so'ng xujayra yoriladi va yuzlab va undan ko'proq yangi virus zararlashga tayyor bo'ladi.



Virus



# Genitikaning guvohlik berishicha

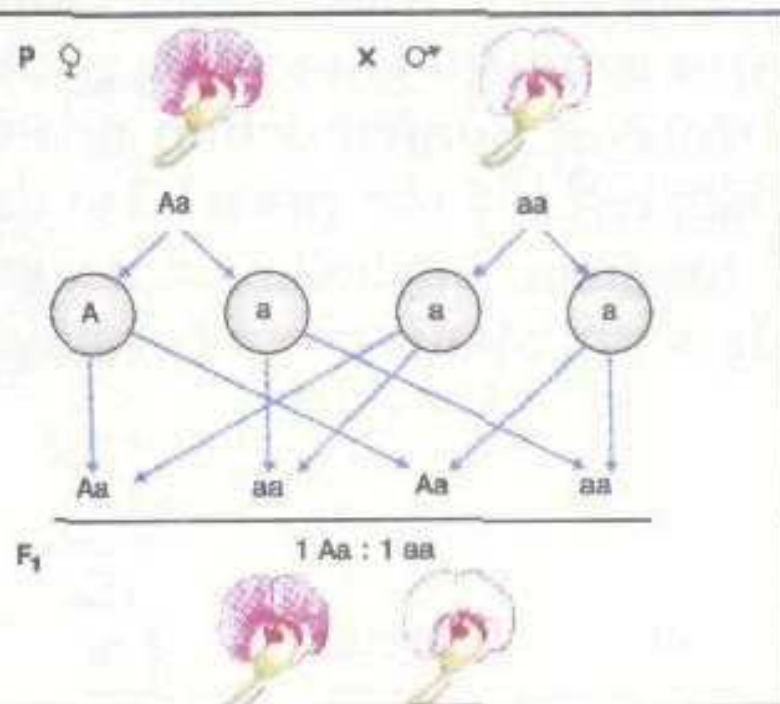
Bizlar o'zimizda vafot etgan barcha avlodlarimiz, butin tabiat to'g'risida axbarotga egamiz. Butin tabiat go'yoki bizda jamu jam bo'lgandir. Bu esa bizda tabiat qo'ygan ma'suliyat to'g'risida guvohlik beradi.

60-rasm.

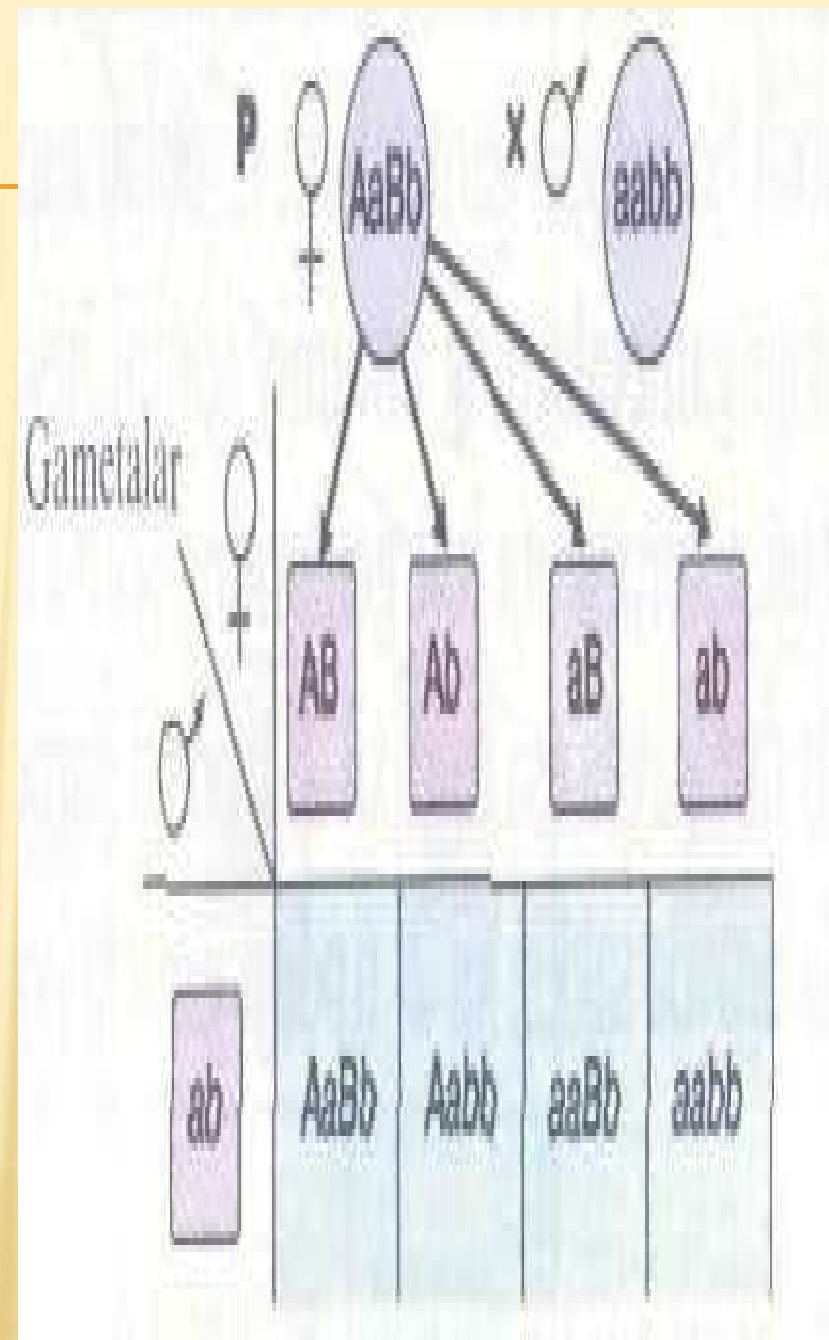
*Monoduragay irsiylanishda  
tahliliy chatishtirish:*

$A$  • gulning qizil rangi,  
 $a$  • gulning oq rangi.

Gametalar



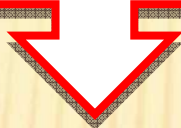
Zamonaviy genotika oldida genlar uyishmasini, ular dinamikasini o'rganish va ijtimoiy jihatdan bog'lanishidagi genlarni qidirish muammosi turadi.



**Oddiy jismlarning xossalari , shuningdek, elementlar xossalari ularning atom og'irliklarining qiymatiga davriy ravishda bog'liq bo'ladi.**



**D.I.Mendeleyevning bu qonuni sodda qilib “elementlarning xossalari ularning atom og'irliklarining ortib borishiga davriy ravishda bog'liqdir”deb ta'riflasa ham bo'ladi.**



D.I.Mendeleyev 1869- yilda o'sha davrda fanga ma'lum bo'lgan elementlarning xossalaridagi davriylikni sinchiklab o'rganib, elementlar davriy sistemasini yaratadi. Davriy sistemaga hozirgi kunda 109 ta element kiritilgan bo'lib, ular 7 ta davr va 8 ta guruhga ajratilgan. I- davrda faqat 2 ta element bo'lib, II va III davrlarda elementlar xossalaridagi davriylik 8 ta elementdan keyin takrorlanadi. Dastlabki 3 ta davr kichik davrlar, IV-VII davrlar esa katta davrlar deyiladi. Buning boisi shundaki IV va V davrlarda elementlar xossalari davriyligi 18 ta elementdan keyin takrorlanadi, ularning har biri 2 tadan yotiq qatordan iborat. VI-davrda elementlar xossalarining davriyligi 32 ta elementdan keyin takrorlanadi. VII davrda 23 ta element bo'lib, tugallanmagan davr hisoblanadi.

## FOYDALANILGAN ADABIYOTLAR

1. Karimov I.A. Uzbekistan buyuk kelajak sari.- T.,Uzbekistan,1998 y.
2. Gorelov A.A. Kontseptsii sovremennogo estestvoznaniya- M. Misl',1998y.
3. Solopov V.S. Kontseptsii sovremennogo estestvoznaniya.- M.,Misl',1998 y.
4. Vernadskiy V.I Biosfera i noosfera. M.,Visshaya shkola,1898 y.
5. Solopov.e.F. «Kontseptsii sovremennogo estesvozananiya №, Moskva, izd-va «VLADOS», 1999.
6. Grin N.va boshkalar «biologiya», izd, «mir», 1990 v z=x tomax
7. Turakulov Yo.X. va boshkalar «Umumiy biologiya», Toshkent. 1995.
8. Turakulov.e.X. «Biozimiya», Uzbekiston, 1996.
9. Brem Z.Va boshkalar «biologiya», Sprovlchnik shkol`nika i studenta.
10. Moskva, izd. «Drofa», 1999.
11. Internet ma`lumotlar

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UCHUN KATTA  
RAHMAT.!**

