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The International Treaty on Plant Genetic Resources for Food and Agriculture: implications for management of intellectual property

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Intellectual Property Rights

- **World Intellectual Property Organization:**
 - Everyone has the right to protect their intellectual investment in creating a new product
- **Trade-related aspects of intellectual property rights:**
 - Every country must provide a system for IPR protection
 - Including genes and varieties

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Protecting intellectual property rights on crops

Trade secrets	Don't tell, don't share
Patents	Breeder can protect improved varieties or genes <ul style="list-style-type: none"> • Global protection: none • National protection: rights to use for any purpose
Sui generis PVP	Breeder can protect improved varieties <ul style="list-style-type: none"> • National protection only unless UPOV
UPOV PVP	Breeder can protect improved varieties <ul style="list-style-type: none"> • Global protection: no one else can protect in UPOV • National protection: no one else can sell to farmers • Not protected: anyone can use for breeding

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Who has what rights over germplasm?

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graph TD
    A[obtain seed from farmers /] --> B[research and breeding in]
    B --> C[and release improved]
    C --> D[and sell seed to farmers]
    D --> E[and sell harvest to consumers]
  
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International legal frameworks

Convention on Biological Diversity	Each country has sovereign right to govern use of any organism originating in its territory <ul style="list-style-type: none"> • including traditional varieties, breeding lines and other crop genetic resources
International Treaty on PGRFA	Member countries agree a standard system for transfer and fair use of crop genetic resources
WIPO-TRIPS	Each country must provide for IPR protection <ul style="list-style-type: none"> • Including genes and varieties

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International Treaty on PGRFA

- **Provides standard system for transferring germplasm**
- **Recipient authorized to**
 - use the material for breeding, research and training for food and agriculture
 - protect and commercialize derived products
- **Recipient may be required to share benefits**
 - Linked to commercialization and IP protection
- **The system:**
Multilateral System of Access and Benefit-sharing
- **Legal instrument for transferring germplasm:**
Standard Material Transfer Agreement (SMTA)


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The Standard Material Transfer Agreement

- A contract to be used for every transfer of material under the Treaty
- Specifies the rights and obligations of Provider and Recipient
- Legally binding under international law
- Text of the SMTA must not be changed
- Available in 6 languages at www.planttreaty.org/smta_en.htm

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Your rights and obligations under the SMTA


(1) as provider of germplasm
(2) as recipient of germplasm



Your rights as provider

- Provide access to lines that you are developing is at your own discretion
- If you provide access to your PGRFA under development, you may add ancillary conditions to SMTA
 - Provided no change to or conflict with existing terms and conditions
 - e.g. you can
 - Charge fees / royalties for access
 - Can restrict access
 - Can require recipient to track and report use of the material


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Your obligations as provider

- Grant access to all available passport data and any other associated available non-confidential descriptive information
- Periodically inform the Governing Body about what germplasm has been provided
- If you provide germplasm protected by intellectual or other property rights, make sure you comply with relevant international agreements and national laws

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Your rights and obligations under the SMTA

(1) as provider of germplasm
(2) as recipient of germplasm



Your rights as recipient:

Subject to certain conditions you may:

- Conserve the germplasm
- Use it for breeding, research and training for food & agriculture
- Develop and commercialise products derived from it
- Claim your intellectual property rights over the product(s) you develop from it
- Distribute it to others
- Distribute derived breeding and research materials
- Add further conditions to distribution of breeding and research materials

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Your obligations as recipient (1)

- You **must not** use the germplasm for “chemical, pharmaceutical and/or other non-food/feed industrial uses”, or any other purpose except research, breeding and training for food and agriculture
- You **must not** claim “intellectual property or other rights that limit the facilitated access to the material ..., or its genetic parts or components, in the form received ...”

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Your obligations as recipient (2)

- You **must** make available all non-confidential information resulting from the your own R&D on the germplasm
- If you keep a sample or copy of the germplasm, you **must** make it available to others
- If you provide the original germplasm or derived breeding lines or research materials to 3rd parties, you **must** do so under a new SMTA
 - as provider in the new SMTA,
 - complying with provider's obligations

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Your obligations as recipient (3)

- If you commercialise a Product (e.g. improved variety) that you develop using germplasm received with an SMTA, and that product is not available without restriction to others for further breeding and research, you **must**
 - Pay a percentage of your sales of the Product to the Governing Body
 - 0.77% of gross sales annually
 - Same percentage irrespective of number of MLS ancestors in pedigree
 - Submit annual reports to the GB on the liability to payment
- Voluntary payment if available without restriction

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Alternative payments

- Lower rate of payment: 0.5%
- Payment is
 - for 10 years renewable
 - on sales of all products of the crop, not just the Product
 - made even if products are available without restriction
 - continues after 10 years for the Product if it is not available without restriction
- Must bind recipients of PGRFA under development to different payment option
 - 0.5% of sales of Product even if available without restriction
- Must tell Governing Body of choice

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IP management implications (1) Record the status of each line

- Categories
 - Raw germplasm available with SMTA
 - PGRFA under development available with SMTA + ancillary conditions
 - Your own commercialised varieties
 - What rights have you claimed?
 - Do you restrict access for breeding and research?
 - Other restricted lines
 - What restrictions?
 - Who owns the IP?
- Why?
- Different conditions for accessibility, reporting, use

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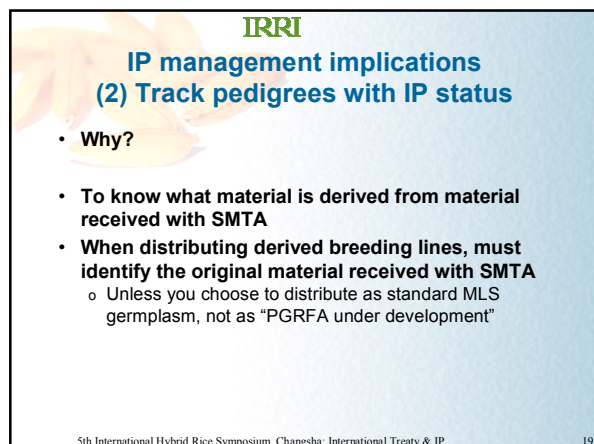
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IP management implications (1a) Know which of your lines are governed by SMTA

- Material received with SMTA
- Material derived from material received with SMTA
- Other material required to be in MLS
- Why?
- To know which must be distributed with SMTA
 - Unless
 - You commercialize without restricting access
 - You choose alternative option for payment
- To know which Products trigger payments
 - Unless
 - You commercialize without restricting access
 - You choose alternative option for payment

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IP management implications
(2) Track pedigrees with IP status

- **Why?**
- **To know what material is derived from material received with SMTA**
- **When distributing derived breeding lines, must identify the original material received with SMTA**
 - Unless you choose to distribute as standard MLS germplasm, not as "PGRFA under development"

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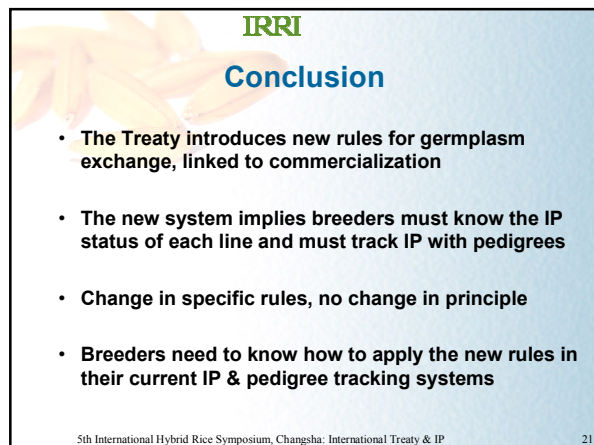


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IP management implications
(4) Record gross sales by variety

- **Only varieties bred from at least one line received with SMTA trigger payment**
 - Unless
 - You commercialize without restricting access
→ no payments necessary
 - You choose alternative option for payment
→ payments on total sales of all varieties

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Conclusion

- **The Treaty introduces new rules for germplasm exchange, linked to commercialization**
- **The new system implies breeders must know the IP status of each line and must track IP with pedigrees**
- **Change in specific rules, no change in principle**
- **Breeders need to know how to apply the new rules in their current IP & pedigree tracking systems**

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