Green Valley Journal of Agriculture Guideline for Research Ethics Involving Human and Animal Subjects.

Authors should read carefully and comply with this guideline whenever they involve human and animal subjects in their research.

Research Ethics Involving Humans

1. Respect for Persons

- **Informed Consent**: Participants must be fully informed about the purpose, procedures, risks, and benefits of the research, and voluntarily agree to participate.
- **Autonomy**: Respect the autonomy of participants by allowing them to withdraw from the study at any time without penalty.
- **Special Populations**: Provide additional protections for vulnerable groups (e.g., children, individuals with disabilities, prisoners).

2. Benevolence

- **Minimizing Harm**: Design studies to minimize physical, psychological, and emotional harm to participants.
- **Maximizing Benefits**: Ensure that the potential benefits of the research outweigh the risks.
- **Risk Assessment**: Conduct a thorough assessment of risks and benefits before starting the study

3. Justice

- **Equitable Selection**: Avoid exploiting or unfairly targeting specific populations in the recruitment process.
- **Fair Distribution of Benefits and Risks**: Ensure that the burdens and benefits of research are distributed fairly.

4. Confidentiality and Privacy

- **Data Protection**: Safeguard participants' personal information through encryption, anonymization, and secure storage.
- **Privacy**: Respect participants' privacy during data collection and reporting.

5. Ethical Approval

- Obtain approval from an Institutional Review Board (IRB) or Ethics Committee before initiating research.

Research Ethics Involving Animals

1. Replacement, Reduction, and Refinement (3Rs)

- **Replacement**: Use alternatives to animal models (e.g., in vitro methods, computer simulations) whenever possible.
- **Reduction**: Minimize the number of animals used without compromising the quality of research.
- **Refinement**: Modify procedures to minimize pain, distress, and suffering.

2. Humane Treatment

- **Housing and Care**: Provide animals with appropriate housing, food, and care to ensure their well-being.
- **Minimizing Suffering**: Use anesthesia or analgesia during procedures to alleviate pain.

3. Justification

- **Scientific Necessity**: Use animals only when no viable alternative exists, and ensure the study has significant scientific merit.
- **Proportionality**: Ensure that the expected benefits justify the use of animals.

4. Ethical Approval

- Obtain approval from an Institutional Review Board (IRB) or Ethics Committee before initiating research.

5. Adherence to Laws and Guidelines

- Follow local, national, and international laws and guidelines, such as:
    - **Declaration of Helsinki** (humans)
    - **The Belmont Report** (humans)
    - **Guide for the Care and Use of Laboratory Animals** (animals)
    - **Animal Welfare Act** (animals, USA)