

稻農雜草防除研究問卷


填問卷！抽郵政禮券！！

稻田耕作雜草問卷



活動說明 只要您有種植水稻，歡迎填問卷、抽大獎！

活動期間 即日起至2019年12月31日止。

 趕快動動手指
填問卷！

活動獎項 每位得獎者可獲郵政禮券600元整，共抽出10位得獎者。

活動辦法

1. 不論是紙本、電子問卷經確認為有效問卷，皆可參加抽獎活動。
2. 欲參加抽獎活動請留下聯絡資訊。
3. 於截止後公布得獎名單並通知得獎者。



心動不如馬上行動！



執行單位：行政院農業委員會農業試驗所
計畫執行人：作物組 吳東鴻 副研究員

第一部分：稻作生產系統

1. 填寫日期：__年__月__日；
2. 基本資料-姓名：____、年齡：____歲；
3. 農田座落：____縣(市)____鄉鎮區____里；
4. **投入時間**：☐全職☐兼職；**身分**：☐產銷班契作、☐公糧個人、☐育苗場；
5. 田區大小：田區數____塊，總面積____分地。
6. 請勾選你田區中最常見的五種水田雜草：

☐稗草



☐雜草稻



☐螢藺



☐尖瓣花



☐莎草



☐雙穗雀稗



☐鴨舌草



☐水荳菜



7. 近五年使用的稻種類型與來源：

(1). 品種類型為：☐粳稻(蓬萊稻)、☐秈稻(在來稻)；

(2). 秧苗來源為：

a. ☐稻農 (☐自行購自育苗場、☐契作指定育苗場、☐自行育苗)，

b. ☐秧苗場(☐自行去雜無檢定證、☐檢定合格稻種具檢定證)。

(3). 描述你最愛的品種及其特性：

品種名：_____；好特性在於：☐高產，☐好管理，☐一、二期穩定，☐耐病蟲，☐米質好，☐香米，☐不倒伏，☐低穗上發芽，☐有色(紫)米。

8. 田間生產管理：

(1)第一期作方式：☐插秧、☐宿根、☐休耕、☐輪作 (作物：_____)；

(a). 種植前整地：☐無；若有，☐ 1 次濕整地，☐ 1 次乾、1 次濕整地；

(b). 收穫後：☐先粗整地風乾 1 周後淹水，☐先淹水 1 周後粗整地，

☐燃燒稻草後粗整地，☐先整地種綠肥，☐不整地種綠肥；

(c). 印象自己田區紅米比例：每 1 分地有_____株，或☐沒仔細觀察。

(2)第二期作方式：☐插秧、☐宿根、☐休耕、☐輪作 (作物：_____)；

(a). 種植前整地：☐無；若有，☐ 1 次濕整地，☐ 1 次乾、1 次濕整地；

(b). 收穫後：☐先粗整地風乾 1 周後淹水，☐先淹水 1 周後粗整地，

☐燃燒稻草後粗整地，☐先整地種綠肥，☐不整地種綠肥；

(c). 印象自己田區紅米比例：每 1 分地有_____株，或☐沒仔細觀察。

第二部分：雜草管理操作

9. 田間雜草管理使用除草劑與中耕除草

(1)第一期作：☐不施用除草劑，或☐會施用除草劑，如下

(a). 累計施用_____次數，

萌前除草劑 ☐丁基拉草，☐淨草丹(普拉草)，☐全期除(滅芬免速隆)；

萌後除草劑 ☐草霸王(本達隆)，☐大野狼(殺丹免速隆)，☐年年春(嘉磷塞)，

☐免速隆，☐固殺草(田埂雜草)，☐其他：_____；

(b). 種植水稻時，會採人工/機械中耕除草☐0、☐1、☐2、☐3 次數。

(1)第二期作：☐不施用除草劑，或☐會施用除草劑，如下

(a). 累計施用_____次數，

萌前除草劑 ☐丁基拉草，☐淨草丹(普拉草)，☐全期除(滅芬免速隆)；

萌後除草劑 ☐草霸王(本達隆)，☐大野狼(殺丹免速隆)，☐年年春(嘉磷塞)，

☐免速隆，☐固殺草(田埂雜草)，☐其他：_____；

(b). 種植水稻時，會採人工/機械中耕除草☐0、☐1、☐2、☐3 次數。

10. 如果第二期作使用宿根栽培，如何進行雜草管理？

☐無宿根栽培；宿根栽培下，☐不嚴重可忽略，☐中耕除草，☐噴施草霸王除草劑等。

11. 要讓田間沒有雜草稻紅米，你會使用哪些方法？

☐用檢定合格秧苗(純度高)，☐不同作物輪作，☐使用除草劑，☐收穫完雜草稻紅米混雜的田區後先清潔機械，☐田間工作安排，先處理無紅米混雜的田區再處理紅米混雜的田區，☐使用抗除草劑品種，☐巡田人工拔除；

12. 若您不使用輪作進行雜草稻紅米的防除，請依重要程度列出理由

(1：最重要，5：最不重要)：

☐水稻生產(收入)最穩定，☐插秧到收穫機械完整方便，☐政府休耕不補助，☐雜糧種、收不方便，☐栽培時間無法配合，其他：_____。

13.對於雜草稻紅米混雜的田區，

(1)你認為現在雜草稻紅米混雜的族群密度如何？

☐沒調查，☐不影響，☐輕微影響，☐中度影響，☐嚴重影響；

a. 輕微影響品質：每分地____株，佔田區比例 ____%，

使用何種方法來管理受雜草稻發生輕微混雜的田區？

b. 中度影響品質：每分地____株，佔田區比例 ____%，

c. 重度影響品質：每分地____株，佔田區比例 ____%，

使用何種方法來管理受雜草稻紅米嚴重混雜的田區？

(2). 雜草稻入侵的問題已發生幾年？ 民國 ____年

(3). 原先無混雜的田區，是如何開始遭受雜草稻紅米混雜？

☐舊品種返祖、退化，☐稻種秧苗純度不夠，☐有色米花粉飄散，☐鄰田水流漂散，☐聯合收穫機殘留攜帶，☐種植有色米累積在土壤。

(4). 如果雜草稻紅米嚴重發生，你是否會放棄種植水稻？ ☐是 ☐否

(5). 根據您經驗，何種方法能最有效控制雜草稻紅米？

☐更換新品種，☐使用合格採種稻種，☐不要宿根，☐人工拔除，☐種植前反覆整地，☐收穫後灌水讓落粒發芽後翻埋，☐施用除草劑，☐水旱輪作，☐其他：

第三部分：種植抗除草劑品種後

14. 國外抗除草劑的品種搭配特定商業除草劑，可以省工防除紅米，但也會增加除草劑使用並需要持續使用，未來你會種植抗除草劑的水稻嗎？

☐會或☐不會，其理由_____。

15. 種植抗除草劑品種後，可能也會產生耐除草劑的雜草稻紅米，你會如何管理抗除草劑的雜草稻紅米？

☐人工拔除，☐換新一種除草劑，☐輪作其他雜糧，☐放棄不種水稻。

16. 總體而言，你認為雜草稻紅米未來混雜的發展趨勢？

☐持續擴散，☐採取翻埋落粒秧苗與減少自生苗逐步控制紅米混雜，

☐種植抗除草劑水稻品種並落實施用特定除草劑後得到較好的控制，

☐在我種植/管理的田區從來不是大問題。

第四部分：雜草稻紅米研究與推廣

17. 你希望農業研究人員針對雜草稻紅米及管理進行何種面向的調查？

☐宣導紅米混雜對生產品質、產量的嚴重性，☐建立長期有效的防除措施，

☐收集紅米混雜的傳播方式，☐提供紅米混雜熱區圖資，☐其他

_____。

18. 何種關於雜草稻紅米的推廣活動是你所需要的？

☐雜草稻紅米植株辨識，☐辦理紅米防除講習，☐提供防除摺頁訊息，☐提

供紅米混雜熱區輔導，☐其他_____。

第五部分：請寫下任何與雜草稻問題相關的觀察與建議

Section 1: Rice production system

1. Date: ____/____/____ (Y/M/D)
2. Basic information - Name: _____ Age: _____
3. Location of the field(s): _____ Village, _____ District/Township/City,
_____ City/County
4. You are a ☐ Fulltime ☐ Part-time farmer.
You use ☐ contractual / ☐ public stock ,or ☐ you manage a seedling nursery.
5. How many plots do you have? _____ Total surface: _____
6. Check the top five most common weeds you encounter in rice production.

☐ Barnyardgrass



☐ Weedy rice



☐ Rock bulrush



☐ Chickenspike



☐ Ricefield flatsedge



☐ Knotgrass



☐ Heartshape false
pickerelweed



☐ Monarch redstem



7. (1) Which types of rice seed you have planted in the last 5 years? ☐ japonica ☐ indica

(2) Where did you get the rice seedlings ?

a. from myself that I ☐ bought seedlings from a nursery.

☐ bought seedlings from the nursery requested by the contract.

☐ produced seedlings by myself.

b. from a nursery, which was ☐ Not certified ☐ Certified.

(3) Which rice variety is your most favorite one? _____

Because of its ☐ high yielding ☐ ease to manage

☐ stability across two crop seasons ☐ pest resistance

☐ good grain quality ☐ no lodging ☐ low pre-harvest sprouting

☐ colored grains

8. Field characteristics

(1) Planting method in the first crop:

☐ Transplanting ☐ Ratooning ☐ Fallowing ☐ Rotation

(a) Land preparation before planting:

☐ No

☐ Yes, ☐ Wet tillage once ☐ Wet and dry tillage once each

(b) Post-harvest activities:

☐ till and one week after flood the field

☐ flood the field first, one week after till

☐ burn rice straw then till

☐ till and sow the green manure

☐ no-till and sow the green manure

(c) What population density of weedy rice in your field do you consider?

_____ plant(s) per unit area (分, equivalent to 969.917 m⁻²) or ☐ I do not notice it.

(2) Planting method in the second crop:

☐ Transplanting ☐ Ratooning ☐ Fallowing ☐ Rotation

(a) Land preparation before planting:

☐ No

☐ Yes, ☐ Wet tillage once ☐ Wet and dry tillage once each

(b) Post-harvest activities:

- ☐ till and one week after flood the field
- ☐ flood the field first, one week after till
- ☐ burn rice straw then till
- ☐ till and sow the green manure
- ☐ no-till and sow the green manure

(c) What population density of weedy rice in your field do you consider?

_____ plant(s) per unit area(分, equivalent to 969.917 m⁻²) or ☐ I do not notice it.

Section 2: Weed management practices.

9. Weed management practices:

(1) Do you use herbicides during the 1st crop? ☐ Yes. ☐ No.

(a) How many times during the 1st crop? ☐ one ☐ two ☐ three or more time(s)
Which herbicides?

Preemergence: ☐ butachlor ☐ pretilachlor ☐ mefenacet + bensulfuron-methyl

Postemergence: ☐ bentazon ☐ benthocarb + bensulfuron-methyl ☐ glyphosate
☐ bensulfuron-methyl ☐ glufosinate ☐ others: _____

(b) How many times do you do manual/mechanical weeding during the 1st crop?

☐ one ☐ two ☐ three or more

(2) Do you use herbicides during the 2nd crop? ☐ Yes. ☐ No.

(a) How many times during the 2nd crop?, ☐ one ☐ two ☐ three or more time(s).
Which herbicides?

Preemergence: ☐ butachlor ☐ pretilachlor ☐ mefenacet + bensulfuron-methyl

Postemergence: ☐ bentazon ☐ benthocarb + bensulfuron-methyl ☐ glyphosate
☐ bensulfuron-methyl ☐ glufosinate ☐ others: _____

(b) How many times do you manual/mechanical weeding during the 2nd crop?

☐ one ☐ two ☐ three or more

10. If ratooning is practiced, how do you control weeds in the ratoon crop?

☐ I do not do ratooning;

I practice ratooning and ☐ weed is not severe and can be ignored ☐ inter-tillage weeding

☐ use herbicides

11. To prevent fields from weedy rice infestation, what methods would you use?

- ☐ use certified seedlings ☐ practice crop rotation ☐ apply herbicide
- ☐ clean equipment after harvesting in weedy rice-infested fields
- ☐ intentionally work first in weedy rice-free fields before moving into infested fields.
- ☐ use herbicide-resistant rice ☐ practice hand weeding

12. If you do not practice crop rotation for weedy rice control, what are the reasons? Please number 1 to 5 from the **most important to the least important** option.

- ☐ Rice production provides stable incomes.
- ☐ Complete and convenient appliances are available for rice farming, from transplanting to harvest.
- ☐ Government provides subsidies for fallowing.
- ☐ Dryland crops are less easy to cultivate and harvest than rice.
- ☐ Cultivation time cannot match.

13. For fields infested with weedy rice:

(1) What is the population density (number of plants/area) of weedy rice in your field?

- ☐ I do not notice it ☐ No effect ☐ Light ☐ Moderate ☐ Severe

a. Light: _____ plant per unit area(分)

Proportion of fields in this category _____(%)

What is done to manage light infestation?

b. Moderate: _____ plant per unit area(分)

Proportion of fields in this category _____(%)

c. Severe: _____ plant per unit area(分)

Proportion fields in this category _____(%)

What is done to manage heavy infestation?

(2) When did the weedy rice infestation get started ? From the year _____.

(3) According to you, for fields that started free from weedy rice, how did the weedy rice

infestation get started?

- ☐ Old variety degenerated. ☐ Rice seedlings are not pure enough.
- ☐ Colored rice pollen scattered. ☐ Drifting through water from neighbor field.
- ☐ Brought into the field by the combine harvester.
- ☐ Colored rice grains accumulated in the soil.

(4) Will you abandon growing rice in a field because of severe weedy rice infestation?

- ☐ Yes. ☐ No.

(5) From your experience, what methods can effectively control the weedy rice?

- ☐ use of new variety ☐ use of certified seeds ☐ no ratooning ☐ hand weeding
- ☐ repeated land preparation before planting
- ☐ flood the field for fallowing grain germination, followed by tilling.
- ☐ herbicide applications ☐ crop rotation between paddy and dryland crop

Section 3: Herbicide-resistant rice.

14. In other countries, there are herbicide-resistant rice varieties which are grown with the use of specific herbicide. This practice can control weedy rice in a labor-effective way meanwhile this will increase the amount of herbicide application and will need constant herbicide applications. Would you plant herbicide-resistant rice? ☐ Yes ☐ No
And why?

15. Herbicide-tolerant weedy rice may happen in herbicide-resistant rice field. How would you manage herbicide-resistant weedy rice?
☐ hand weeding ☐ use different kinds of herbicides ☐ crop rotation ☐ abandon growing rice

16. Overall, what is your assessment of the future state of weedy rice infestation?

- ☐ It would continue to spread.
- ☐ It would be progressively controlled if the spontaneous plants are removed through tillage.

- ☐ Weedy rice would be under better control if we plant herbicide-resistant rice varieties combining with the application of appropriate herbicides.
- ☐ Weedy rice is never a major problem in the fields that I farm/manage.

Section 4. Red Rice Research and Extension Needs

17. What aspects of red rice infestation and management do you want researchers to investigate?

- ☐ Disseminate the severe consequences of weedy rice infestation on grain quality and yield.
- ☐ Establish long-term effective control measures.
- ☐ Collect the way that weedy rice infestation spreads.
- ☐ Provide heatmaps of weedy rice contamination.
- ☐ Others: _____

18. What types of extension activities about red rice do you need?

- ☐ Workshop on weedy rice identification.
- ☐ Workshop on weedy rice control.
- ☐ Leaflet on weedy rice control.
- ☐ Consulting in regions of severe weedy rice infestation.
- ☐ Others: _____

Section 5. Please write any other observation/comment you would like to make regarding the state of weedy rice problem
